CONTRACT ENVIRONMENTAL SERVICES, INC.
410 N. Auburn
Farmington, New Mexico 87401
Phone (505) 325-1198

Single Solid Waste Application

Asbestos-Containing Building Material Landfill
San Juan County, Utah

Application Prepared By:

Contract Environmental Services, Inc.
410 N. Auburn Avenue
Farmington, NM 87401

Application Presented To:
Utah Solid And Hazardous Waste
Mr. Dennis R. Downs

Application Date: November 17, 2004

Property Of Consideration:
Northeast Quarter
Section 18, Township 39 South, Range 26 East
San Juan County, Utah
160 Acres +/-

OUTLINE

Narrative

UST Soil Recycling Plan – Previous Approval

Required Submittals

R315-305 Class IV and VI Landfill Requirements

- 305-1
- 305-2
- 305-3
- 305-4
- 305-5

Additional Submittals

R315-302 Solid Waste Facility Location Standards, General Requirements, Closure Package

- 302-1
- 302-2
- 302-3

R315-303 Landfilling Standards

- 303-2
- 303-3
- 303-4

R315-315 Asbestos Waste

Accreditation Of CES Owner On Asbestos, Etc...

Proposed Asbestos Landfill Manifest

Survey Of Property

Ranking Criteria And Score

Permeability Tests

Maps

Previous Approvals 1999 and 2001

Financial Assurance

Property Ownership

Utah Finding Of Fact – Previous Permits

San Juan County Utah Information

Campgrounds – San Juan County, Utah

Demographics – San Juan County, Utah

Transportation And Air Service

Asbestos Building Materials Landfill

Narrative

Contract Environmental Services, Inc. (CES) currently operates a 160 acre Oilfield Exploration & Production Waste Soil Facility in SE Utah. The facility was opened in 1999 and is permitted through the State Of Utah, Division Of Oil, Gas and Mining (DOGM).

Recently, CES applied for and received a permit from the Division Of Solid And Hazardous Waste (dated June 22, 2004) to accept underground storage tank waste soil for recycling. In our Plan of Operation we specify that the UST recycled waste soil will be used as cover material for the Asbestos-Containing Building Material Landfill.

Now CES is submitting the current permit application to receive **One Solid Waste – Asbestos Containing Building Materials (ACBM)** to the State Of Utah Solid And Hazardous Waste Division. This will complete the application process to now accept Oilfield Waste Soil, UST Waste Soil and Asbestos-Containing Building Materials for this same 160 acre facility.

Since this property initially was set up as an E&P Waste Soil Facility it already has many features needed for the Asbestos-Containing Building Material Landfill:

1) A four foot dike around the perimeter
2) Barbwire fence around perimeter
3) Locked gates at the entrance
4) Controlled access – one point
5) Sign with operators name and emergency phone number
6) Sparsely populated area – no one located within one mile
7) Estimated 1100' to groundwater
8) Relatively flat property with only grazing on adjacent property
9) Clay sand natural barrier to leaching
10) Not visible from highway
11) All weather road leading to the facility from pavement
12) Internal road system complete
13) Privately owned property
14) Managed and operated by an environmental consulting firm
15) Approved for operation from DOGM 1999, expanded 2001
16) Bond in place – financial assurance active
17) Record keeping history – Landfarm manifests
18) Approved manifest forms in place

CES has plenty of room to expand. Additional property adjacent to the existing 80 acres currently being used is ready to fence and berm and also become active. No E&P or UST Waste Soil has been placed on that west 80 acres. Currently CES segregates the E&P Waste Soil from its larger clients as necessary.

Asbestos-Containing Building Materials may include the following: sheetrock with asbestos tape and texture, bricks, stucco, chalk boards, floor tile, ceiling tile, mastics, adhesives, spray-on texture, window caulking, pipe insulation, gaskets, transite siding, electrical wire insulation, boiler insulation, duct work, roofing materials, shingles, felt, asbestos on concrete, plaster, acoustical insulation, blankets, friction material, cementitous siding, surfacing material, Class I, II, III, IV friable and non-fiable asbestos and others.

The Landfarm manager is extensively trained in asbestos to include certificates in Asbestos Inspection, Asbestos Management / Planner, Asbestos Contractor / Supervisor, Hazardous Waste Site Operations (40 hr), State Of Utah DERR Groundwater and Soil Sampler, Naturally Occurring Radioactive Materials (NORM) and others.

As stated in our Plan Of Operation for the soil recycling (previously approved in June of this year). CES will use remediated soil from UST sites to also provide cover material for the asbestos landfill thereby giving it a second purpose qualifying for recycle. That portion already approved needs the Solid Waste Permit for Asbestos-Containing Building Materials to complete the recycle process.

Within the remediated sections (cells) of the Landfarm CES will excavate the working face of the asbestos landfill. We estimate a depth of approximately 10' will be removed to allow for the asbestos building materials to be deposited. Immediately following deposition or at the end of the day CES will cover all plastic bags containing asbestos with up to 12" of soil. The soil will either be remediated E&P soil, native soil or remediated UST soil. To close the landfill cell, CES will add another 12" of soil and then put topsoil above that to sufficiently support a wind and water erosion resistant crop. Seeding and watering would be completed until a crop is sufficiently established. The landfill cell is expected to be 50' wide and run continuously from cell to cell. Since the breakdown of hydrocarbon soil often has a fertilizer value, CES should not have a problem getting a cover crop established.

CES will develop an asbestos landfill manifest (attached) similar to the one we currently use for E&P Waste Soil. Each load of asbestos will be carefully placed on the manifest that will detail the generator, responsible party, transporter, date and time of arrival. The manifest will have a place for the generator to sign that states there is NO PCBs or hazardous materials within the load. No Asbestos-Containing Building Materials will be accepted without a completed manifest accompanying it.

CES anticipates no groundwater monitoring or liner system will be required as discussed with Mr. Ralph Bohn in May 2004. We also anticipate approval of this second part of the recycle plan in order to have a material to cover with the remediated soil. As stated also, this Asbestos-Containing Building Materials being just one item may also not be required for governor or legislative consideration as compared to a full municipal landfill.

CES does not plan to have the asbestos landfill open Monday thru Friday at first. It will be similar to the E&P Waste Soil in that it will be open by appointment only at first. Once established and marketed adequately CES plans to move to being open every day (Monday thru Friday). With the E&P Waste Soil, there was stockpiled waste experienced that caused the need for the facility to be open Monday thru Friday from the start. If that holds true for Asbestos-Containing Building Materials, it is possible to start with the facility open Monday thru Friday.

CES anticipates taking Asbestos-Containing Building Materials only during daylight hours. Inclement weather can also affect the Landfill. The big trucks could slip and slide if too much rain is received at the facility. CES reserves the right to cancel Asbestos-Containing Building Material deposition if inclement weather is experienced or persists.

The Landfill will be reachable by cellular phone most of the time. If an emergency transpires and cell phones ar not working properly, CES can go to Hovenweep Monument to use the telephone during an emergency. Utilities such as electricity, gas and water so far are unavailable due to the remoteness of this facility.

The nearest small community is Aneth, Utah to the south some 20 miles, Montezuma Creek and White Mesa communities are located to the southwest and west some 30 miles from the Landfill. The nearest sizeable community with standard services, is Blanding, Utah at 38 miles and Cortez, CO to the east and south at 41 miles.

UST SOIL

RECYCLING

PLAN

INVOLVING ASBESTOS

APPROVED JUNE 22, 2004

State of Utah

Department of Environmental Quality

Dianne R. Nielson, Ph.D.
Executive Director

DIVISION OF SOLID & HAZARDOUS WASTE
Dennis R. Downs
Director

OLENE S. [illegible]KER
Governor

GAYLE F. McKEACHNIE
Lieutenant Governor

June 22, 2004

Shawn Adams
Contract Environmental Services, Inc.
410 North Auburn
Farmington, New Mexico 87401

Subject: Recycling Plan of Operation

Dear Mr. Adams:

We have reviewed the Plan of Operation received June 1, 2004 for the proposed Contract Environmental Services, Inc. (CES) soil remediation operation near Hovenweep Monument. The Plan of Operation meets the requirements of the rules. Based on the Plan of Operations, soils from the cleanup of regulated underground storage tanks (UST) may be accepted at the CES facility.

The following requirements of the Utah Solid Waste Permitting and Management Rules apply to UST soils received at the facility:

- A certification must be submitted to the Executive Secretary by March 1 of each year that the facility has operated according to the submitted plan of operation (R315-312-2(2) UAC). This certification may be included with the annual report (see below);
- At least 50% of the material on site at the beginning of a year must be shown to have been recycled, or the facility will be considered a disposal facility (R315-312-2(3)(a) UAC);
- An operating record must be maintained which includes the weights or volumes, number of vehicles entering; deviations from the plan of operation; training and notification procedures; and an inspection log or summary (R315-302-2(3)(a) UAC);
- An annual report must be placed in the operating record and submitted to the Executive Secretary by March 1 of each year which includes the annual quantity of solid waste handled at the facility (R315-302-2(4) UAC);
- The generator of the UST soils must meet the requirements of R315-5-1.11 and provide documentation that the soils were not derived from a hazardous waste and do not meet the definition of hazardous waste under Utah Administrative Code R315-2;

- Testing must be conducted by CES as outlined in the plan of operation; and
- Areas for the storage of the soils shall be constructed as outlined in the plan of operation, maintained and operated so that air surface waters or ground water will not become contaminated.

Additionally, the Division of Air Quality within the Department of Environmental Quality may have regulatory requirements that impact the facility. They can be reached at (801) 536-4000. You should also contact the Southeastern Utah District Health Department at (435) 637-3671 if you have not already done so.

If you have any questions, please contact Ralph Bohn at 801/538-6794 or by email at rbohn@utah.gov.

Sincerely,

Dennis R. Downs, Executive Secretary
Solid and Hazardous Waste Control Board

DRD/RTB/kk

c: David Cunningham, B.S.N., R.N., Director, Southeastern Utah District Health Dept.
David Ariotti, DEQ Southeastern District Engineer

TN200400699.doc
file: CES UST soil Recycling approval.doc

REQUIRED SUBMITTALS

CLASS IV & VI

LANDFILL

REQUIREMENTS

In a phone conversation with Mr. Ralph Bohn on April 30, 2004 he stated that the Permit Application that most closely fit my description was the application for a Class IV and VI Landfill.

R315-305. Class IV and VI Landfill Requirements

305-1

This Landfill will be for Asbestos-Containing Construction / Demolition Debris only. The CES facility will not receive yard waste or dead animals. This facility will not receive more than 20 tons of Asbestos-Containing Building Material waste per day therefore the "a" classification will not apply to this facility. The "b" size classification will apply to the CES facility..

305-4

Our facility is not located in an area of floodplains or wetlands. The CES facility is requesting an exemption on the groundwater monitoring requirements specified in 315-301.

The CES facility is currently designed and constructed to prevent run-on and run-off waters by means of a continuous 4' dike around the original permitted 80 acres, the only part active at this time. As a need for the west 80 acres becomes apparent, CES will fence and dike this additional acreage to enclose 160 acres for use. We maintain all of our records in our Farmington, NM office at 410 N. Auburn Avenue.

CES currently has a sign erected at the entrance to the facility on the SE corner of the east 80 acres.

305-5

CES will not accept any building material that Is not known to contain asbestos unless it is affixed to Asbestos-Containing Building Materials that were inseparable. Metal without insulation and concrete without asbestos are examples of demolition products that will not be accepted at this facility.

At least one person will be on the site during hours of operation and shall prevent unauthorized disposal by controlling entry by use of a barrier berm or locked gate. When the facility is closed, CES will guarantee security with a lockable gate and barrier.

The minimum size of the working face of the asbestos landfill cell will be fifty feet (50'). The length of the asbestos cell will be continuous and may cross landfarm cells as needed. Emissions will be prevented by having a water tank and pressured water to expel on any load that emits emissions. However, since the waste coming should be double-bagged and the container is to also be lined with plastic, no emissions should be observed.

The CES facility will have a dust control plan that includes applications of water and /or magnesium chloride to reduce or eliminate dust. Liquids are not expected at the CES facility with the exception of the water and wetting agents that are applied to the asbestos as it is being removed. We do not however expect large amounts of liquids. There should be not scattered litter associated with properly disposed asbestos building materials. When properly contained, all building materials are surrounded by two poly bags to hold the waste. No scavenging will be allowed at any time. Each day, asbestos containing building materials will be covered with a minimum of 6" – 12" of soil prior to leaving the facility.

When the facility is ready for closing, the landfill cells previously dug to approximately 10' deep will be leveled to the extent practicable and the waste shall be covered with a minimum of two (2) feet of soil including six inches of topsoil. Contouring the surface and seeding with grass will be accomplished, or use of other vegetation approved by the State Of Utah to minimize erosion. CES will periodically check the status of the cover material and cover crop.

R315-302 Solid Waste Facility Location Standards

It is more than 5000 feet to Hovenweep National Monument from the proposed asbestos landfill facility. Hovenweep National Monument is the closest of these type facilities to the proposed landfill. There are no known natural areas, wildlife management areas or habitat for threatened or endangered species designated to the Endangered Species Act of 1982. There is no "prime or unique" farmland in the immediate area considered by the US Department of Agriculture Soil Conservation Service. The surrounding area is primarily grazing. It is more than one mile to any existing permanent dwellings in any direction. There are no schools or churches or other incompatible structures in the area. There are no historic structures within the State or National Register within one mile. It is more than 30 miles to the nearest airport from the proposed landfill. There are no archeological sites that would violate section 9-8-404

R315-302-1 It is more than a mile from the most eastern portion of the subject property to Hovenweep Monument to the east. The subject property starts at this point and moves further westward from the monument. The furthest point of the subject property is more than 1.5 miles from the Hovenweep Monument. There are no state or county parks, recreation areas, wilderness or wilderness study areas; or wild and scenic river areas within this same 1000' range of the subject property. Adjacent areas are grazing with sagebrush and native grasses.

There are no existing permanent dwellings, residential areas, schools or churches within ¼ mile of the subject property. There are no historic structures listed with the state or National Register Of Historic Places within ¼ mile of the subject property.

There is no airport within 10,000' of the subject property. There are no archaeological sites of significance within a ¼ mile of the subject property.

The subject property is not part of a subsidence area, a dam failure flood area, above an underground mine, salt dome, above a salt bed or other geologic structure that could compromise the structural integrity of the facility. There is no known faults in the area of the subject property. The facility is not located in a seismic impact zone or unstable area.

The subject property is not located on public land. The subject property is not in a location that could cause contamination to a lake, reservoir or pond. The existing property is not in a floodplain or wetlands.

Depth to groundwater at the subject property is estimated at 1100' below ground level. CES does not plan to install a liner for the asbestos building material cells. The clay-sand is such a fine-grained material it forms an impermeable layer that would cause auger refusal. CES claims exemption from groundwater monitoring for the subject property in reference to R315-302-1-2 at the end where it states "Where there is a natural impermeable barrier above the groundwater, or where there is no groundwater, the Executive Secretary may exempt the disposal site, on a site specific basis, from some design criteria and groundwater monitoring".

R315-302-2

CES has submitted our Plan Of Operation to the State Of Utah on May 27, 2004 for the Recycled Soil. Approval was received on June 25, 2004 via written formal approval letter. CES will abide by this Plan Of Operations. CES will prepare an annual report due by March 1, of each year that will include quantities in cubic yards of asbestos building materials. Inspections of record will also be included with the annual report. Inspections will be made no later than quarterly and may often be completed weekly when other activities are occurring at the facility. Problems found at inspection will be immediately corrected at the next available opportunity.

Any duly authorized officer or the Executive Secretary may anytime enter the solid waste facility and inspect the property, records, activities or practices.

R315-302-3

CES has already submitted copies of our existing Landfarm Bond that is held by the Division Of Oil, Gas And Mining (DOGM). Also included was the Pollution Liability Insurance currently in place and maintained since the existing facility opened in July 1994.

CES will prepare quarterly reports (as we are currently doning for E&P Waste Soil) for the Asbestos-Containing Building Materials that will have the total estimated volume in cubic yards received for that period. We will also prepare an annual report to summarize the calendar year of waste received.

CES will draft and submit a closure plan at the appropriate time. The estimated life of this Asbestos-Containing Building Material Landfill is twenty (20) years.

When closed, the subject property will be done in a manner that minimizes further maintenance and continues to eliminate threats to human health and the environment. A Plan Of Closure will be developed as the expected life of the facility is coming to an end. Notification of closure will be made 60 days prior to projected final receipt of waste. Closure activities will be completed within 180 days from initialization. Post closure activities for facility maintenance of land will continue for 10 years beyond closure date or until stabilization is confirmed if sooner.

When post closure activities are complete, CES will submit a certification to the Executive Secretary signed by a professional engineer.

R315-303-2. Landfill Standards For Performance

CES will not contaminate the groundwater underlying the facility. Asbestos is an inert object, it does not leach into the substrate. It is at least 1100' to groundwater if it does exist below the site.

With asbestos there is no explosive gas emissions. CES will not cause a violation to ambient air quality on the property due to landfill gases, combustion or other emissions.

CES will not cause a violation of the Utah Pollution Discharge Elimination System for surface run-off, leachate or any liquid associated with the facility. If the facility experienced any discharge it would be in compliance with the Clean Water Act.

R315-303-3 Standards For Design

CES will prohibit disposal of containerized liquids, non-containerized liquids, sludges with free liquids or any waste containing free liquids in containers.

The landfill is already designed and constructed to prevent run-on water due to the large dike that completely surrounds the facility. The existing facility collects all surface water run-off and keps it on the property.

CES has not applied for or received a storm water permit.

CES is requesting exemption from landfill liners on behalf of the depth to groundwater (1100') and the soil barrier naturally being a clay sand. Below the clay sand is a caliche or bonded layer that would further prevent penetration from liquids. Auger refusal is often achieved in this zone. The silts and sands are very fine-grained and impermeable.

Climate Factors

Asbestos or solid waste constituents will not migrate above or below the first few feet of ground surfacing adjacent to placement much less the ground water far below. The asbestos and building material physical and chemical characteristics will remain very similar to the way they are received at the landfill since they

will be double-bagged and have the air evacuated prior to burial. The bags should not become punctured even during burial. This area receives less than 25 inches of annual precipitation. No municipal waste will be accepted at the CES facility

As stated in R315-303-3(3)c(i) CES claims the exemption of a liner and leachate collection system and groundwater monitoring requirements since we will accept no municipal waste, no conditionally exempt small quantity generator hazardous waste and no other hazardous waste that is exempt.

Closure

A layer will be placed to minimize infiltration of at least 18 inches of soil graded to no more than 2%. A layer on top to minimize erosion able to sustain vegetative growth and seeded with grass or other shallow rooted vegetation. This layer will allow protection from wind and water erosion.

Explosive gases will not be monitored since this facility will not accept municipal waste.

CES requests a waiver of completing the public comment period specified in R315-311-3 since CES will not accept municipal waste and given the climatic and hydro-geologic conditions of the site.

Drawings of the working face of the asbestos cell will be included.

Fencing is already completed (Phase 1) at the property boundary with the 4' dike to impede entry by the public or large animals. A lockable gate is already in place at the facility.

Estimations on the cubic yards or tonnage of waste received will be made for each load received. These estimates will become a part of the facility's operation record. A sign has already been erected at the facility entrance that identifies the name of the facility with an emergency telephone number. A list of unacceptable materials will also be added to the signage.

R315-303-4 Standards For Maintenance And Operation

CES will make efforts to control fugitive dust generated from roads, construction and general operations. CES will collect scattered litter as necessary. No scavenging will be allowed. Landfill personnel will be trained in asbestos management will be on sight when the landfill is open to the public.

The CES facility will collect less than 20 tons per day of asbestos building materials on average. The active area of the asbestos landfill cell will be clearly marked for inspection purposes.

Daily cover of 6" – 12" of soil will be placed at the end of each days operations. The daily cover material may be remediated oil & gas soil, remediated UST soil or virgin soil from the property as needed. Testing will be completed to assure that remediated soil primarily is used. No recyclable containers will be placed at the facility for other wastes. Only asbestos building materials will be accepted unless fastened or inseparable to other materials of construction.

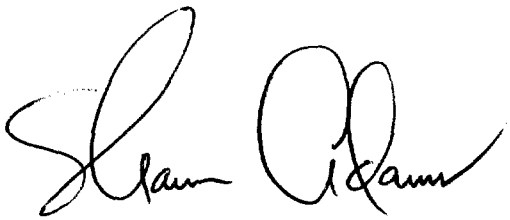
All asbestos loads will be inspected prior to placing in the landfill cell for disposal. Unacceptable loads will be rendered acceptable or returned to the sender. Asbestos manifest will have a place to sign or initial NO PCBs or hazardous waste.

R315-315-2

Asbestos Waste

CES will handle and dispose of Asbestos-Containing Building Materials in a manner that will not permit the release of asbestos fibers into the air. Friable asbestos waste will only be accepted if properly containerized and adequately wet upon arrival. If the waste is not properly containerized CES will either refuse the load or thoroughly soak the load with a water spray prior to unloading. Waste received that is

not properly containerized will immediately be covered with soil. Trucks with improperly containerized loads will be rinsed prior to leaving the Landfill. Signs will be placed at the area where asbestos is being disposed of.



ACCREDITATION

OF CES OWNER

ASBESTOS

AND OTHERS

This certifies successful

completion of the approved 8 hour training course.

Shawn A. Adams

525230807

Asbestos Contractor / Supervisor Refresher

For the purposes of accreditation required under

TSCA Title II ,AHERA and training under NESHAP.

In Compliance with the State of Louisiana regulation

Conducted by

Acme Environmental Inc.

4007 Carlisle NE
Albuquerque, NM 87107
(505) 872-ACME

course date: *06/18/04*

exam date:

expires on: *06/18/05*

course director:

certificate number: *061804-10*

This certifies successful

completion of the approved 4 hour training course.

Shawn Adams

525230807

Asbestos Inspector Refresher

For the purposes of accreditation required under

TSCA Title II and AHERA

In Compliance with the State of Louisiana regulation

Conducted by

Acme Environmental Inc.

4007 Carlisle NE
Albuquerque, NM 87107
(505) 872-ACME

course date: *07/08/04*

course director:

exam date:

expires on: *07/08/05*

certificate number: *070804-06*

This certifies successful

completion of the approved 4 hour training course.

Shawn Adams

525230807

Asbestos Management Planner Refresher

For the purposes of accreditation required under

TSCA Title II and AHERA

In Compliance with the State of Louisiana regulation

Conducted by

Acme Environmental Inc.

4007 Carlisle NE
Albuquerque, NM 87107
(505) 872-ACME

exam date:

course date: *07/08/04*

expires on: *07/08/05*

course director:

certificate number: *070804-18*

State of Utah

Department of Environmental Quality
Division of Environmental Response and Remediation

Groundwater and Soil Sampler Certificate

Shawn Adams of Flint Environmental Service

has certified as a Groundwater and Soil Sampler through Rule R311-201, Utah Administrative Code

GS0666	Executive Secretary	November 04, 1994
Certificate Number		Expiration Date

By authority of the Board of Regents of the

New Mexico State University

and upon recommendation of the University Faculty

Shawn Aaron Adams

has been admitted to the degree of

Bachelor of Geological Sciences

and is entitled to all rights and honors thereto appertaining.

Witness the Seal of the University and the signatures of its Officers

this month of December, 1987, at Las Cruces, New Mexico

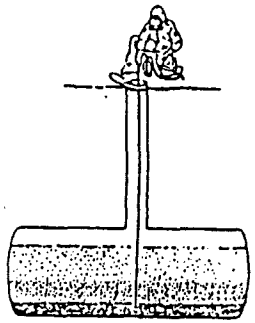
NEW MEXICO STATE UNIVERSITY N M S U 1888

Irma Muney Glover
President of The Regents

James E. Halligan
President of the University

Secretary-Treasurer of The Regents

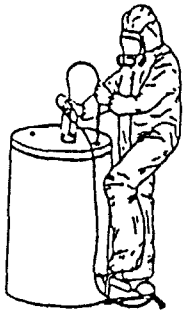
Dean



This Certifies That

SHAWN A. ADAMS

Has Completed



MANAGING HAZARDOUS WASTE OPERATIONS TRAINING

(In Compliance With OSHA 29 CFR 1910.120)

Presented By

Scott, Allard & Bohannan, Inc.

3001 W. Indian School Road, Suite 312 • Phoenix, Arizona 85017 • (602) 263-0045

Keith W. Scott

Course Director, CET

92420-1878

Certificate No.

03/18/93

Date

Certificate of Registration

Shawn A. Adams	410 N. Auburn Avenue		
Name	*Street Address*		
Contract Environmental Services, Inc.	Farmington	NM	87401
Organization	*City*	*State/Province*	*Zip/Postal Code*

Registration Number(s)	Radiological Service Specialty(s) For Which Certification Is Issued	Expiration Date(s)
671 - 6N	Surveys of NORM in the Oil and Gas Industries	Jul 31, 2008

Radiation and contamination surveys of naturally occurring radioactive material (NORM) in the oil and gas industries as specified in Part 14 (20.3.14 NMAC) of the New Mexico Radiation Protection Regulations.

1) Surveys shall be performed in accordance with 20.3.14 NMAC, and all other applicable provisions of the New Mexico Radiation Protection Regulations (20.3 NMAC).
2) The registrant shall develop and use written procedures for surveys.
3) This registration does not entitle the registrant to mitigate the radiation and contaminants created by oil and gas NORM.
4) Only the registrant named on this certificate may perform surveys of record under the authorizations of this registration.
5) Analysis required by 20.3.14 NMAC to determine radioisotopic concentrations shall be performed only by laboratories specifically licensed to do so by either this Bureau, the Nuclear Regulatory Commission (NRC), or an NRC Agreement State.
6) The registrant shall maintain adequate credentials to perform surveys. This includes, however is not limited to, performing surveys on a recurrent basis.

In accordance with Part 2 of the New Mexico Radiation Protection Regulations (20.3.2 NMAC), the above named person or organization is registered with the New Mexico Radiation Control Bureau as having the necessary training and knowledge to provide radiological services in the specialty(s) indicated above. These services will be provided in New Mexico to both public and private concerns, and to licensees and registrants of the New Mexico Radiation Control Bureau. The registrant shall not perform services which are not specifically indicated by this certificate and its provisions, and is subject to all applicable requirements of the New Mexico Radiation Protection Regulations (20.3 NMAC). The registant is responsible for applying for timely renewal of registration(s) as they expire individually, and shall notify this Bureau in writing before making any changes which would render the information contained in this certificate to be inaccurate. New Mexico Radiation Control Bureau, PO Box 26110, Santa Fe, New Mexico 87502-6110, phone (505)476-3236.

POST OR FILE.
This certificate and its provisions must be available for inspection.

7/2/2003
(Date)

Stanley Fitch
Radiation Control Bureau
New Mexico Environment Department

PROPOSED ASBESTOS

LANDFILL

MANIFEST

Contract Environmental Services, Inc.

410 N. Auburn Avenue Farmington, New Mexico 87401 505-325-1198

Asbestos Landfill Manifest

Manifest Number:

I certify that this is Asbestos-Containing Building MaterialWaste,No PCBs Signed: _____

Delivery Date (mm/dd/yy): _____ **Delivery Time:** _____

Volume Delivered (est. cu. Yd.): _____

Description (bags, wrapped pipe, floor tile, etc...) _____

_____

_____

_____

Asbestos Origin and Generator Information:

Location or Building: _____

Address: _____

Generator: _____

Address: _____ Phone: _____

Send Invoice to (if different from above):

Name: _____ **Job or P.O. no.:** _____

Company: _____

Address: _____

Phone: _____

Transporter Information:

Trucking Company: _____

Address: _____

_____

Phone: _____

Driver: _____ **Truck Number:** _____

Time left site: _____ **Time arriving at landfill:** _____

Time to unload contents: _____

Asbestos Covered will be either (check one):

- ☐ **remediated UST**
- ☐ **virgin soil**
- ☐ **remediated E&P**

Depositing Information:

Grid Number Deposited In: _____

Shade in approximate area accounted for by the asbestos in the appropriate grid square:

Asbestos Data:

Acceptable condition: _____

Yes: _____ **No:** _____

Condition remedied by: _____

Returned to Sender: _____

Date returned: _____

GPS info N _____

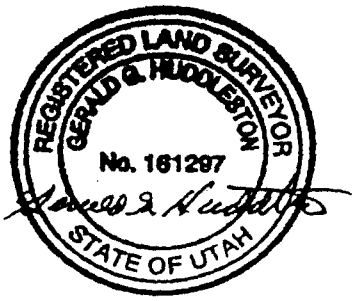
W _____

21	20	19	3	2	1
22	23	24	4	5	6
27	26	25	9	8	7
28	29	30	10	11	12
33	32	31	15	14	13
34	35	36	16	17	18

SURVEY

E 1/4 corner

* 5 rebar/al.cap
4346

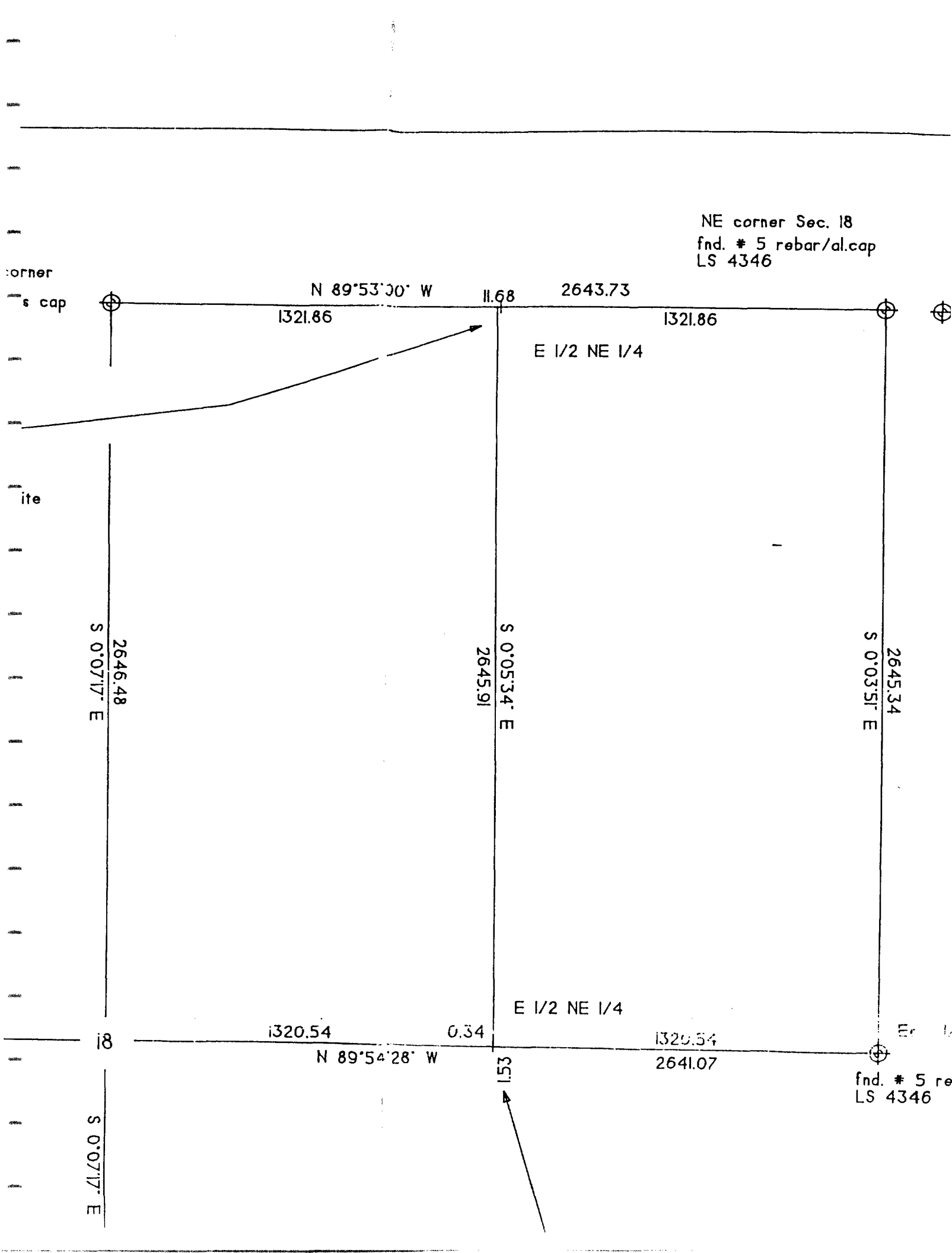


Contract Environmetal

E 1/2 NE 1/4 Section 18
T.39 S.. R.26 E.. SLM
San Juan County. UT

30 April 1999

HUDDLESTON LAND SURVEYING
P.O.B KK - CORTEZ, COLORADO 81321 - (303) 565-3330


NE corner Sec. 18
fnd. # 5 rebar/al.cap
LS 4346
corner
s cap
N 89°53'00" W
11.68
2643.73
1321.86
1321.86
E 1/2 NE 1/4
ite
S 0°07'17" E
2646.48
S 0°05'34" E
2645.91
S 0°03'51" E
2645.34
E 1/2 NE 1/4
18
1320.54
0.34
1320.54
N 89°54'28" W
2641.07
153
fnd. # 5 re
LS 4346
S 0°07'17" E

RANKING CRITERIA

AND

SCORE

Evaluation Ranking Criteria and Ranking Score
For Reserve and Onsite Pit Liner Requirements

Site-Specific Factors	Ranking	Site Ranking
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	0
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	0
100 to 200	15	
< 100	20	
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	0
500 to 1320	10	
<500	20	
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	0
<300	20	
Native Soil Type		
Low permeability	0	
Mod. permeability	10	0
High permeability	20	
Fluid Type		
Air/mist	0	
Fresh Water	5	0 (n/a)
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud	15	
Fluid containing significant levels of hazardous constituents	20	
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	0
Annual Precipitation (inches)		
<10	0	
10 to 20	5	0
>20	10	
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	0
>50	10	
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	0
Present	15	
Final Score		0

Evaluation Ranking Criteria and Ranking Score
For Oily Waste Cleanup Levels

Site-Specific Factors	Ranking Score	Site Ranking Score
Distance to Groundwater (feet)		
>100	0	0
100 to 75	4	
75 to 50	8	
50 to 25	12	
25 to 10	16	
<10, or recharge area	20	
Native Soil Type		
Low permeability	0	0
Mod. permeability	10	
High permeability	20	
Annual Precipitation (inches)		
<10	0	0
10 to 20	5	
>20	10	
Distance to Nearest Municipal Water Well (feet)		0
>5280	0	
1320 to 5280	6	
500 to 1320	8	
<500	10	
Distance to Other Water Well (feet)		0
>1320	0	
300 to 1320	5	
<300	10	
Distance to Surf. Water (feet)		
>1000	0	0
300 to 1000	5	
<300	10	
Affected Populations		
<100	0	0
100 to 300	5	
>3000	10	
Presence of Nearby Utility Conduits		0
Not Present	0	
Unknown	8	
Present	10	
Final Score		0

PERMEABILITY

TESTS

Table 1. Results Of Soil Permeability Tests.

Sample Number	Borehole Depth	Calculated Permeability
1 (Stst1)	27"	6.62×10^{-5}
2 (Stst2)	27"	2.39×10^{-7}
3 (Stst3)	27"	4.35×10^{-6}

The above values in m/sec can be compared to the following chart.

1 10^{-1}	10^{-2}	10^{-3}	10^{-4}	10^{-5}	10^{-6}	10^{-7}	10^{-8}	10^{-9}	10^{-10}
clean gravels	clean sands		very fine sands *	clay * silts		*	clay-silts clays		
High			**Medium**			**Low**			

Note * = Permeability Tests For Landfarm

The results show that the soil is of medium to low permeability. The Guidance for Pit Liner Requirements was utilized to determine a ranking score for this facility. The site has a total ranking score of 5. A ranking score sheet for liner requirements is attached at the end of this application. Given this score and the fact that no liquids will be disposed of at this facility, it is believed that no liner will be required.

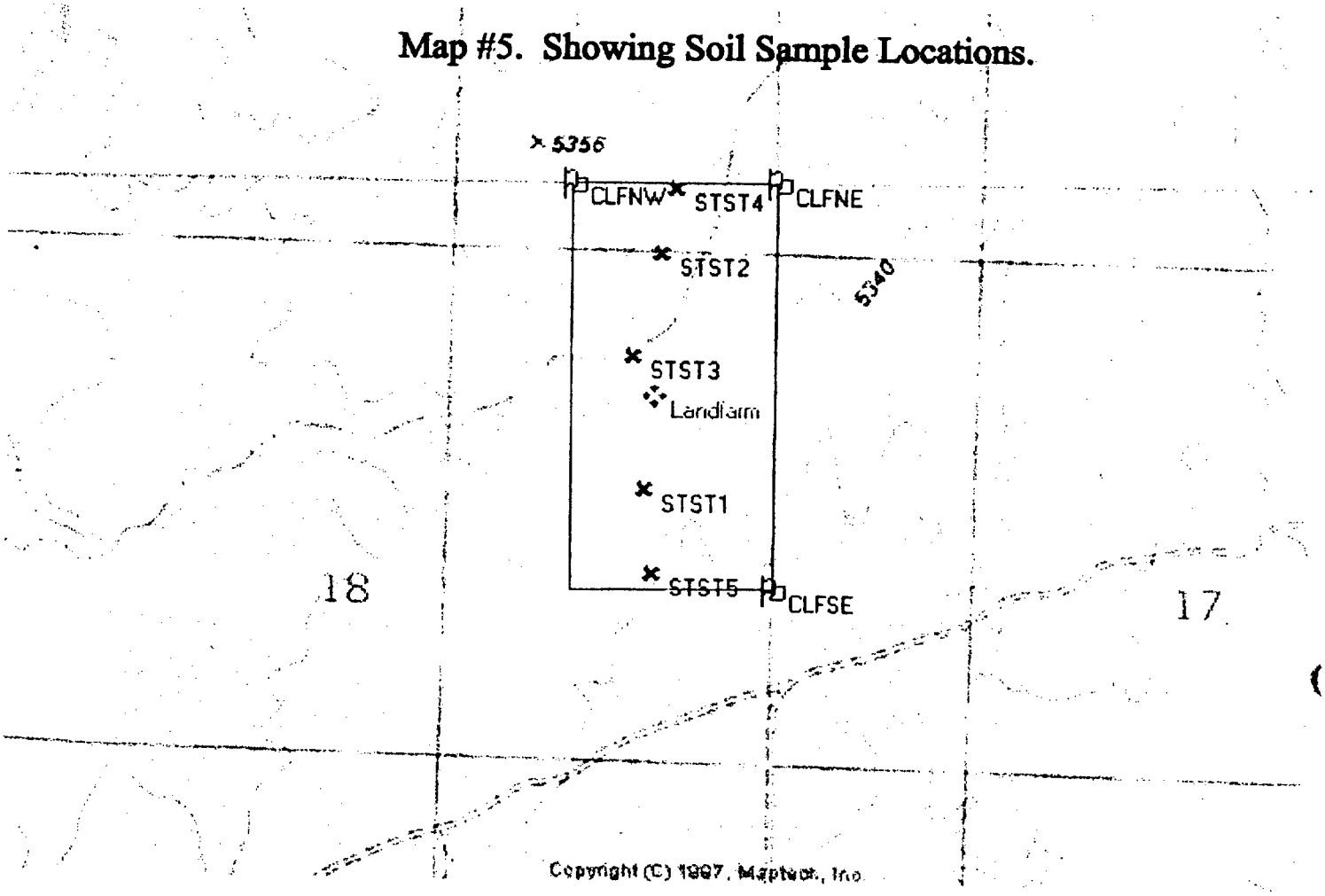
Soil Description Across Facility

Stst1 -	Sand	50%	Stst2 -	Sand	50%
	Silt	25%		Silt	30%
	Clay	25%		Clay	20%
Stst3 -	Sand	40%	Stst4 -	Sand	35%
	Silt	30%		Silt	40%
	Clay	30%		Clay	25%
Stst5 -	Sand	30%			
	Silt	35%			
	Clay	35%			

Site Characteristics

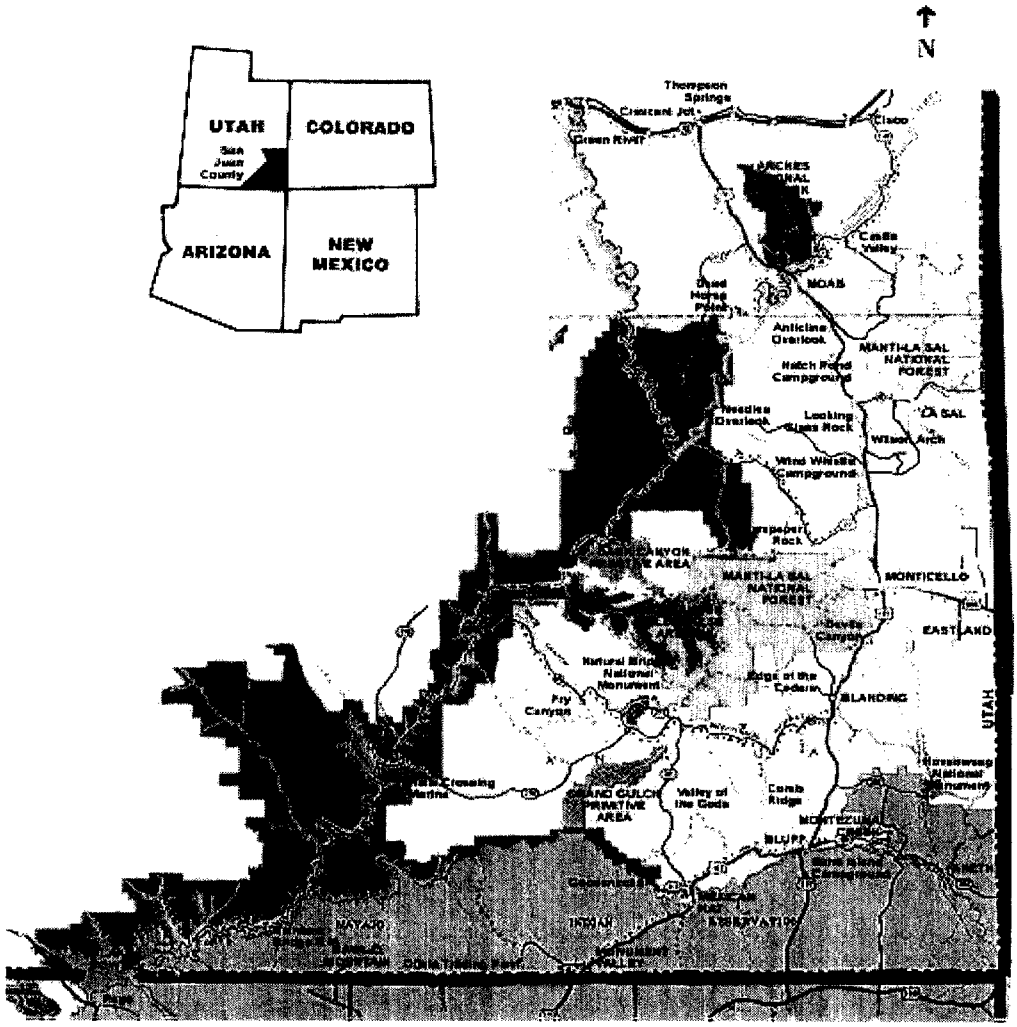
The site chosen for this facility is an eighty (80) acre piece of land that is primarily barren. Portions of it suffered from a brush fire some time ago. There is limited vegetation present throughout the property. Groundwater is at least 1000 feet below ground level. There appears to be no underground utilities or stock watering ponds on or near the facility. The soil native to the area is a fine-grained, reddish-brown sandy silt with a clay-silt laminate. Permeability tests were performed on the soil using the Bureau Of Reclamation Field Test Designation E-18. This test uses a cased hole to determine the infiltration rate of water into the soil at a specified depth. Three (3) locations were tested on the property as shown on Map 5. The results of those tests are given in Table 1.

Map #5. Showing Soil Sample Locations.



MAPS

- Area Attractions
- Communities
- Map of the Area
- Businesses
- Accommodations
- Camping
- Scenic Drives
- Museums
- Calendar
- Heritage
- Mileage
- Visitor Info
- Contact



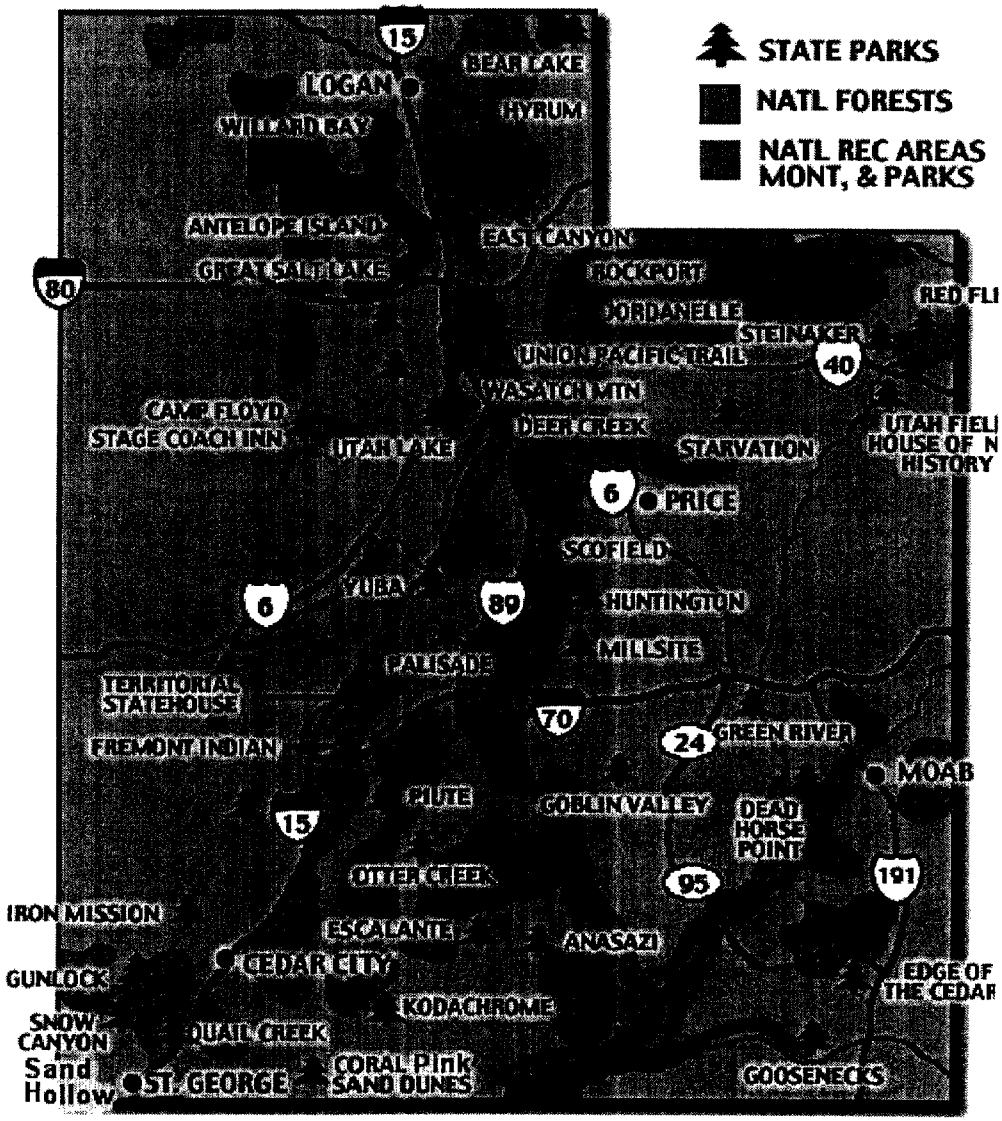
| Area Attractions | Communities | Map of the Area | Businesses | Accommodations | Camping |
| Scenic Loop | Museums | Calendar | Heritage | Mileage | Visitor Information | Contact |

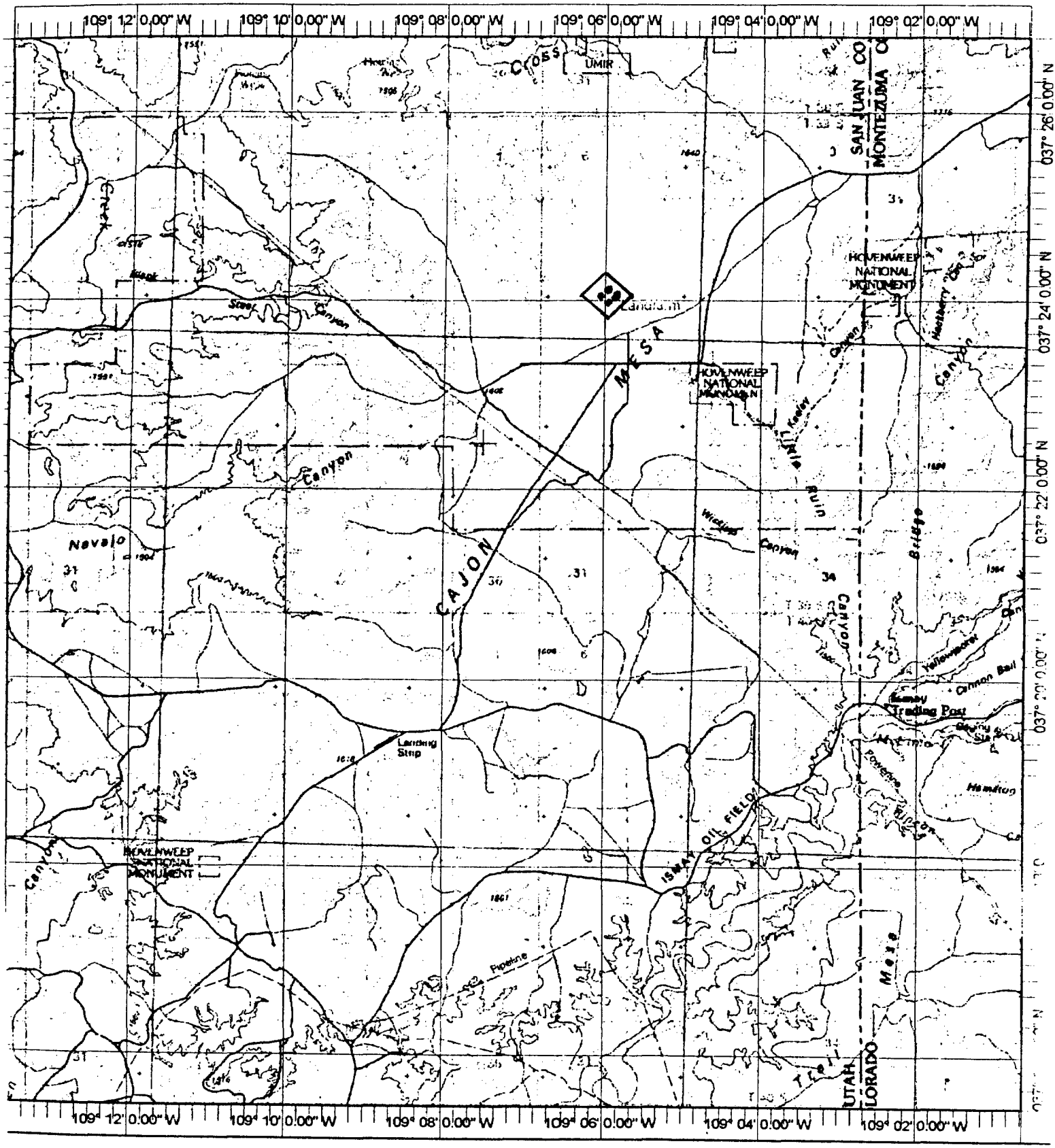
| Business | Transport/Freight | Demographic Tables | Communities |
| Map of the Area | Education | Real Estate | Quality of Life | Contact |

| Tourism | Relocation | Home |

DISCOVER UTAH'S STATE PARKS AND MUSEU

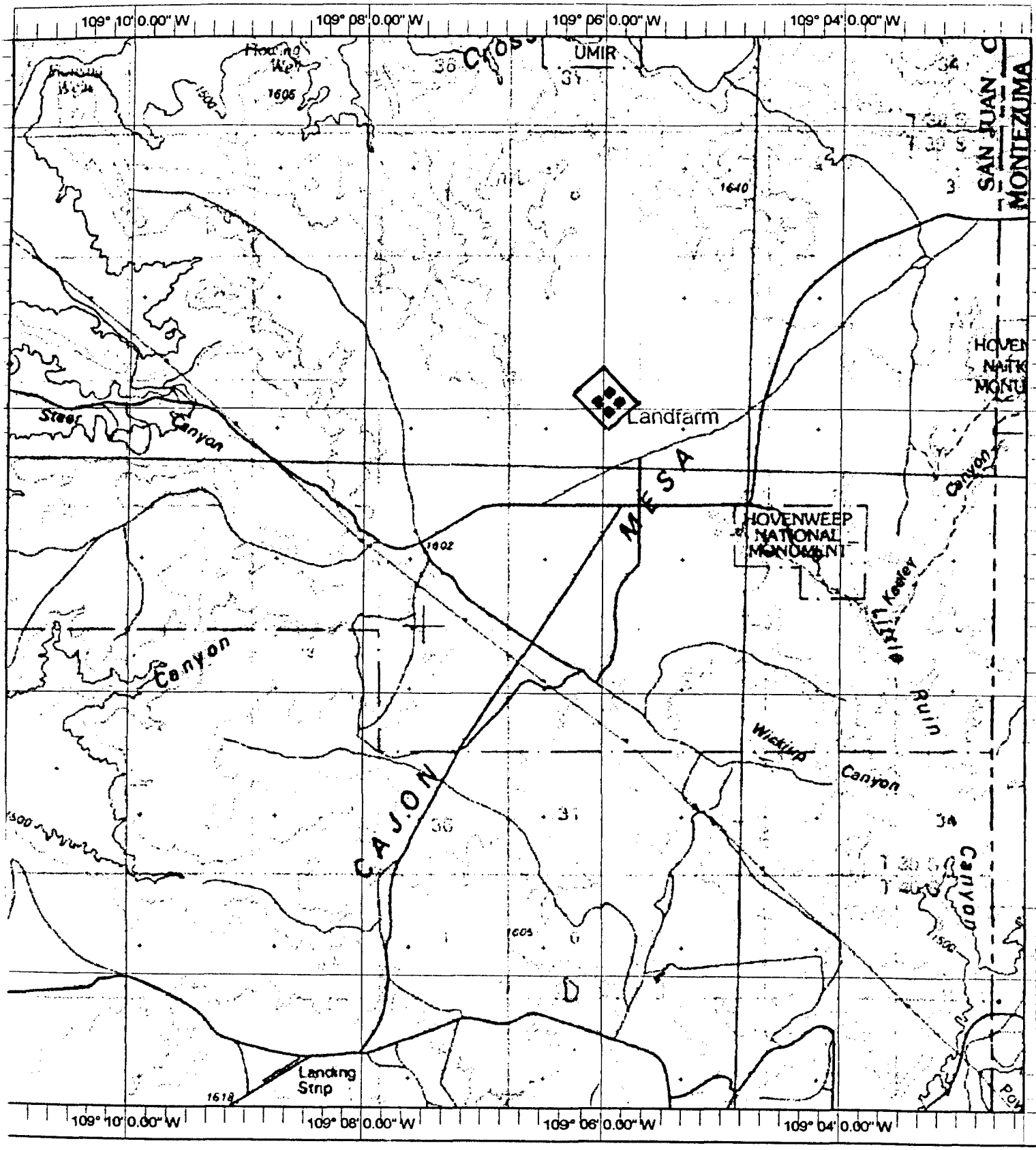
Home
Reservations Home
Information and Procedures
Fees
Changes & Cancellations
Reservations Calendar
Troubleshooting
FAQs





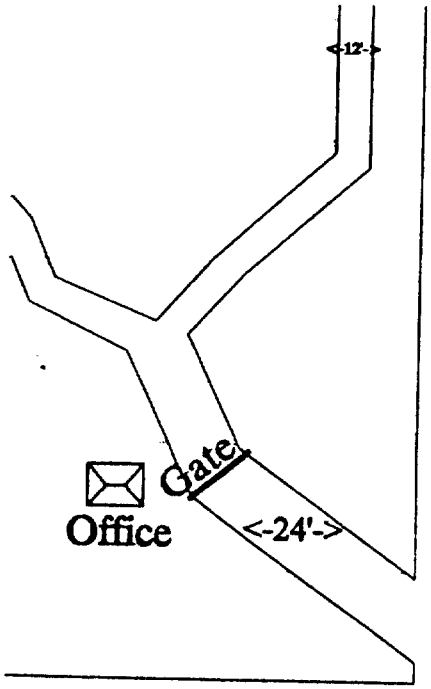
Name: BLUFF
Date: 3/3/99
Scale: 1 inch equals 1.578 miles

Location: 037° 21' 08.2" N 109° 07' 05.1" W
Caption: Map 3. Showing Land Farm Location In 1:100,000 Scale.



Name: BLUFF
Date: 3/3/99
Scale: 1 inch equals 1.052 miles

Location: 037° 22' 50.6" N 109° 06' 43.4" W
Caption: Map 4. Showing Blown Up View Of Land Farm In 1:100,000 Scale

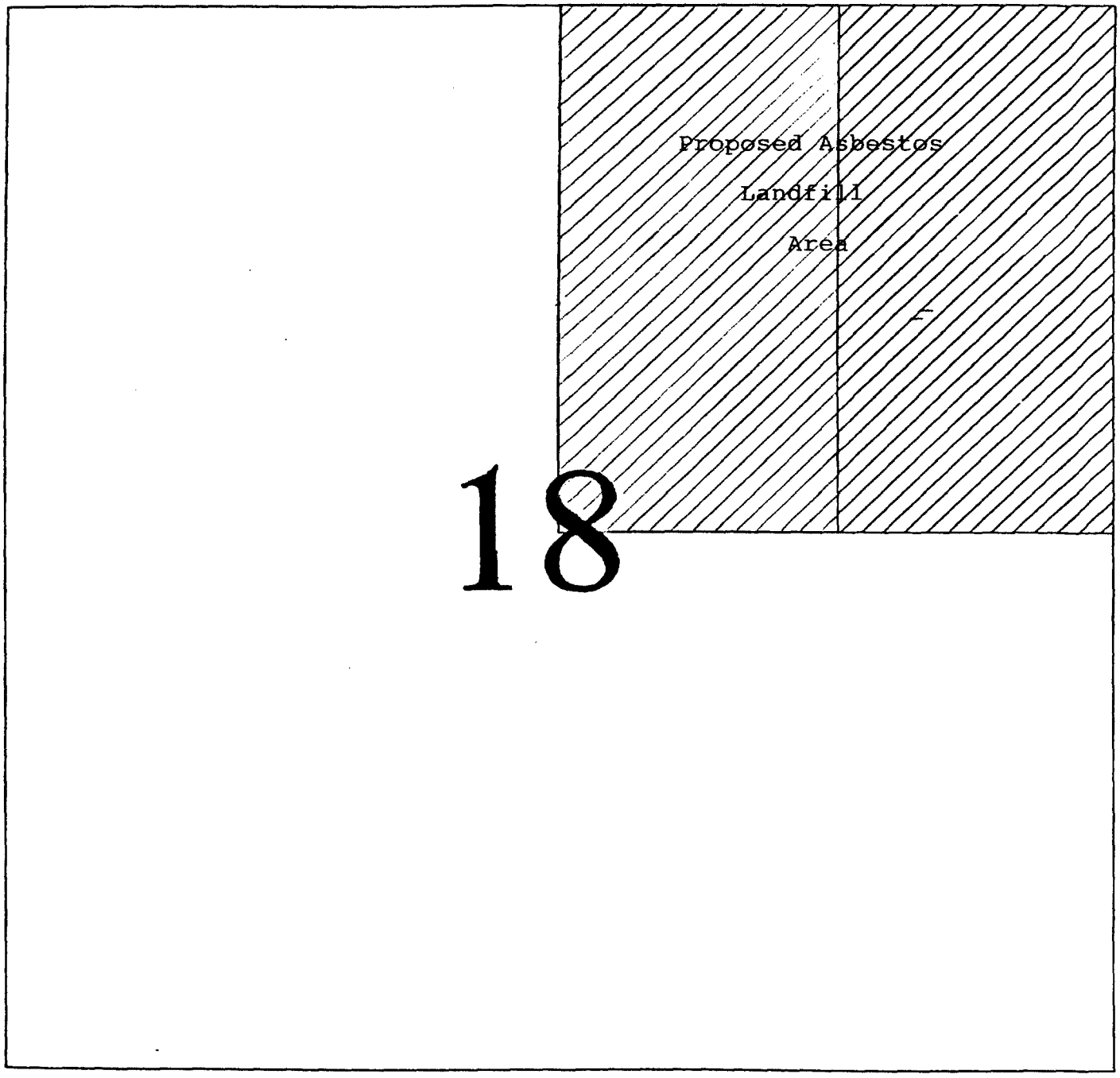


Showing Entrance and Exit to Facility.

Entrance

Exit

Showing the plot of the 160 acre piece of property in relation to Section 18.



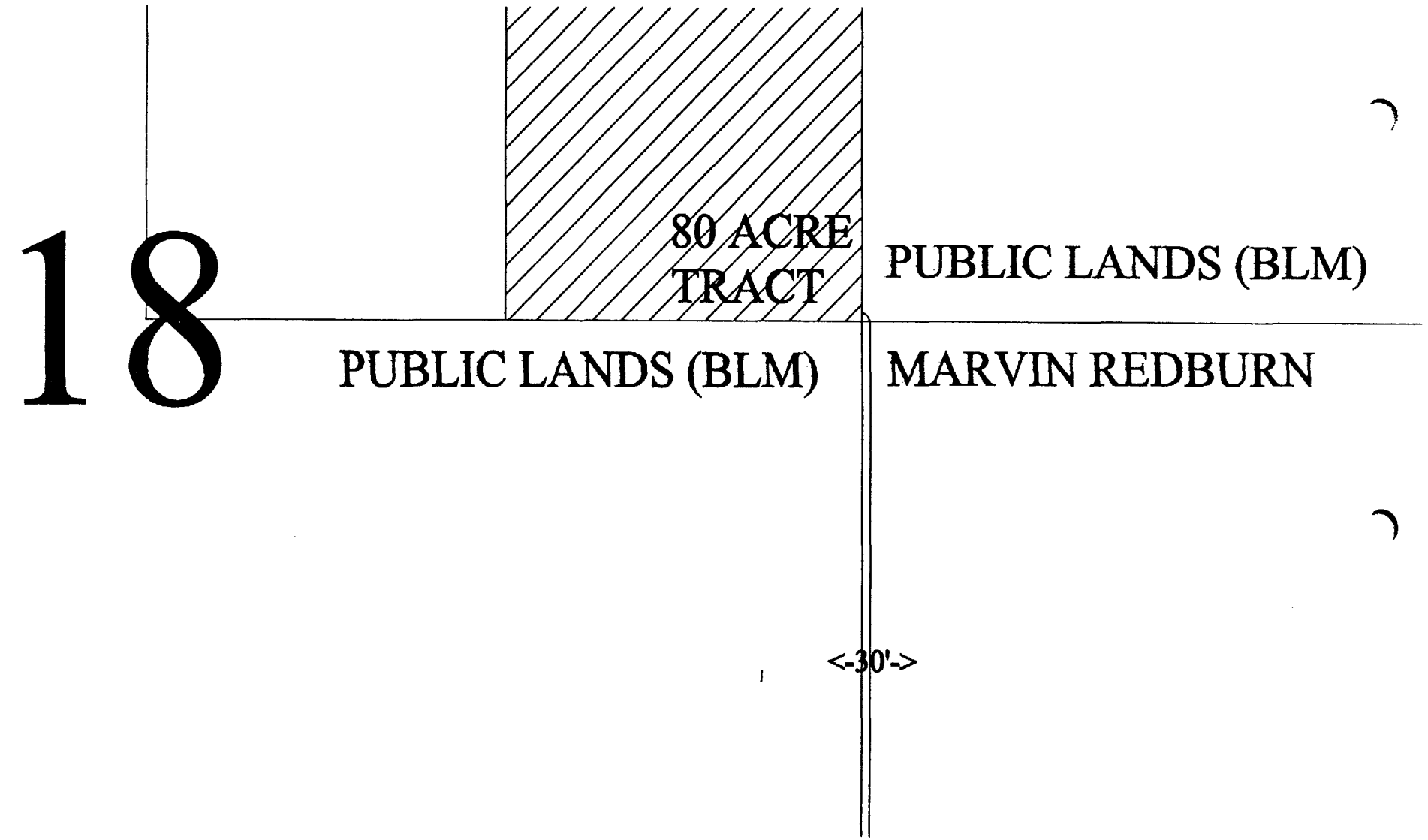

18
80 ACRE TRACT
PUBLIC LANDS (BLM)
PUBLIC LANDS (BLM)
MARVIN REDBURN
<-30'->
I

Figure 2. Showing Internal Road System.

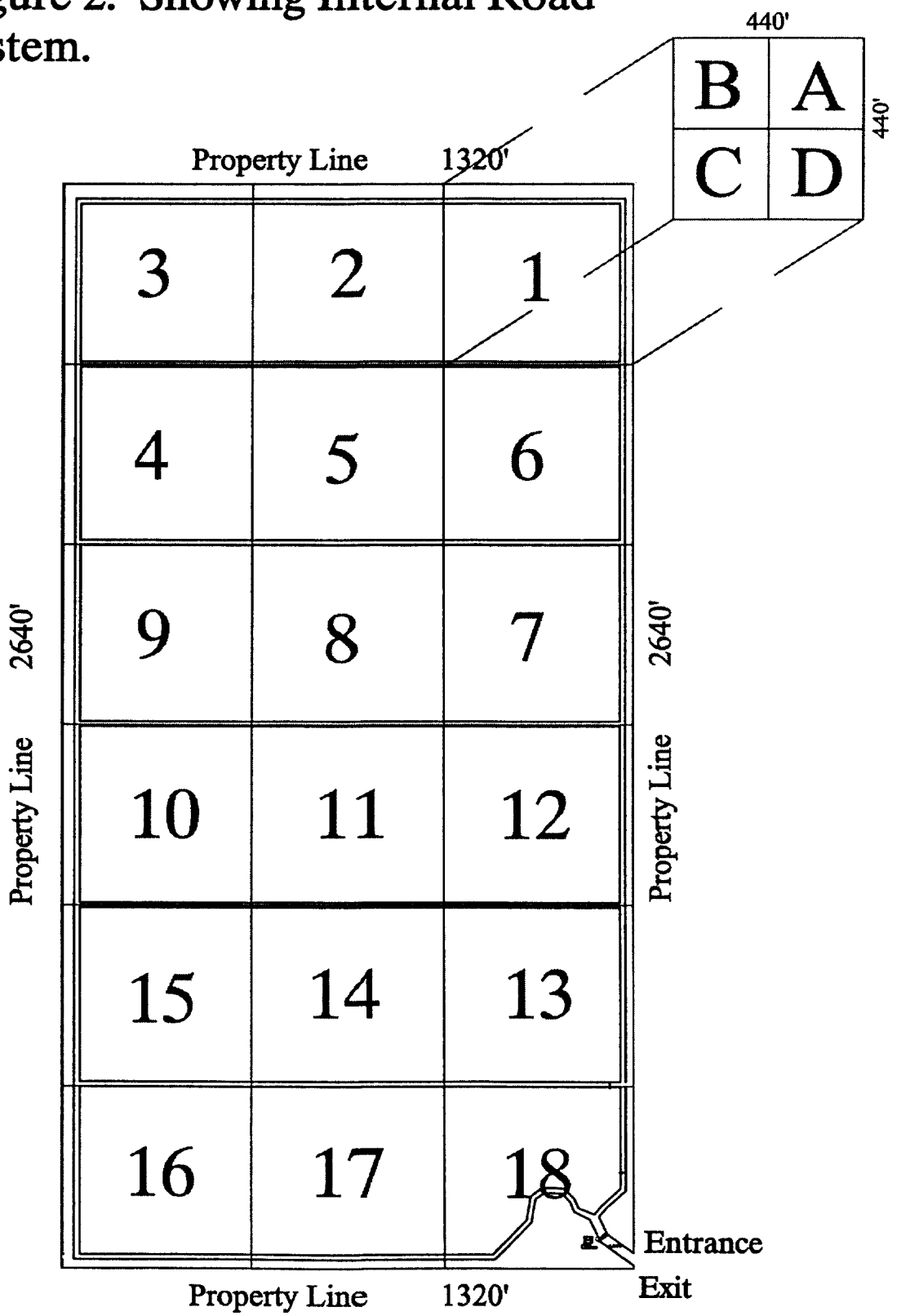
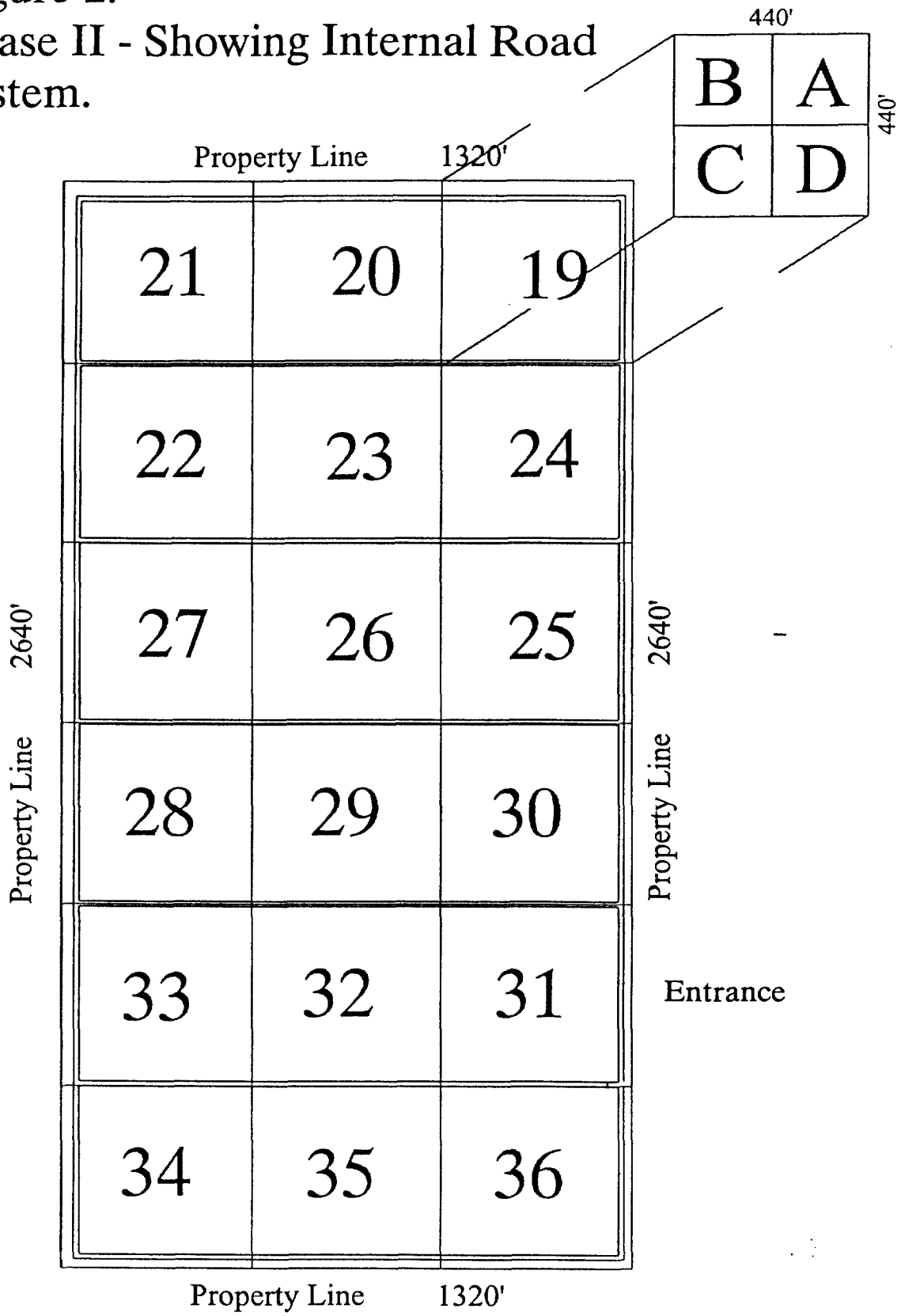
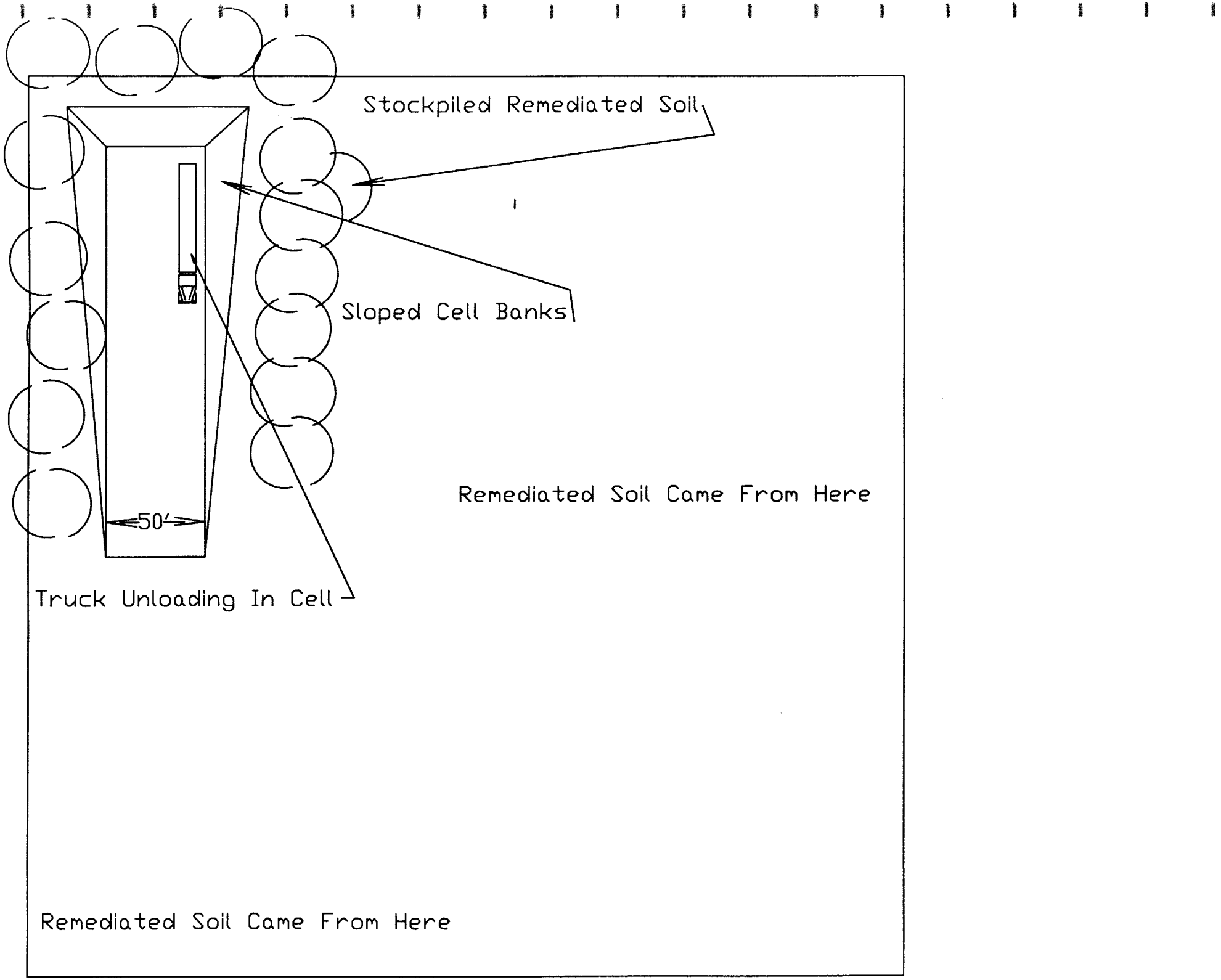
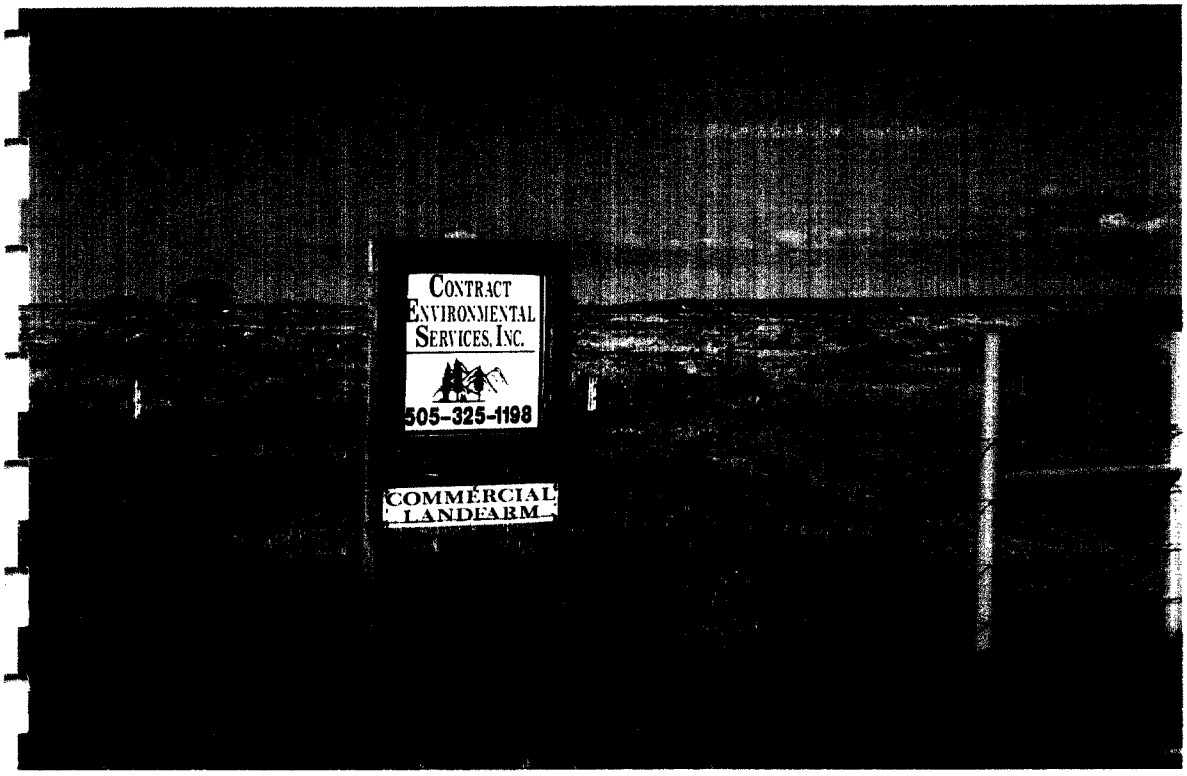


Figure 2.
Phase II - Showing Internal Road System.

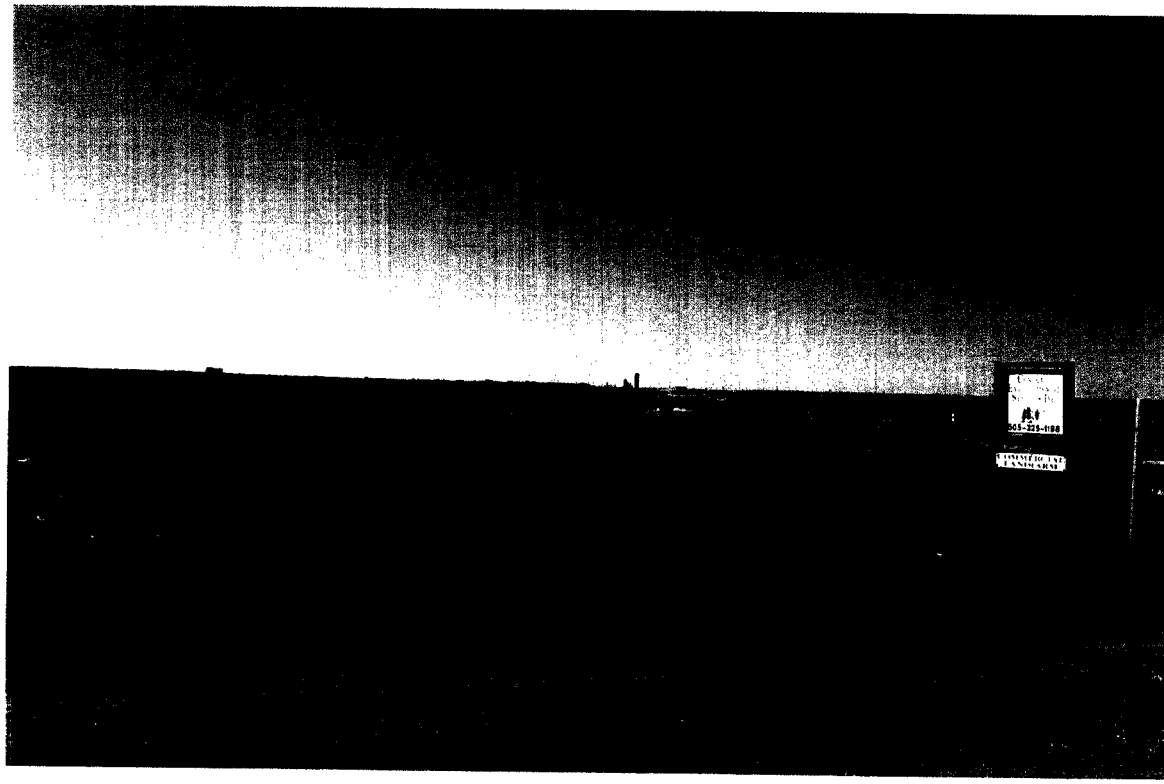



Stockpiled Remediated Soil
Sloped Cell Banks
50'
Remediated Soil Came From Here
Truck Unloading In Cell
Remediated Soil Came From Here



Landfarm Sign Looking North at entrance

Signed Entrance Looking West



Security Gate at Entrance

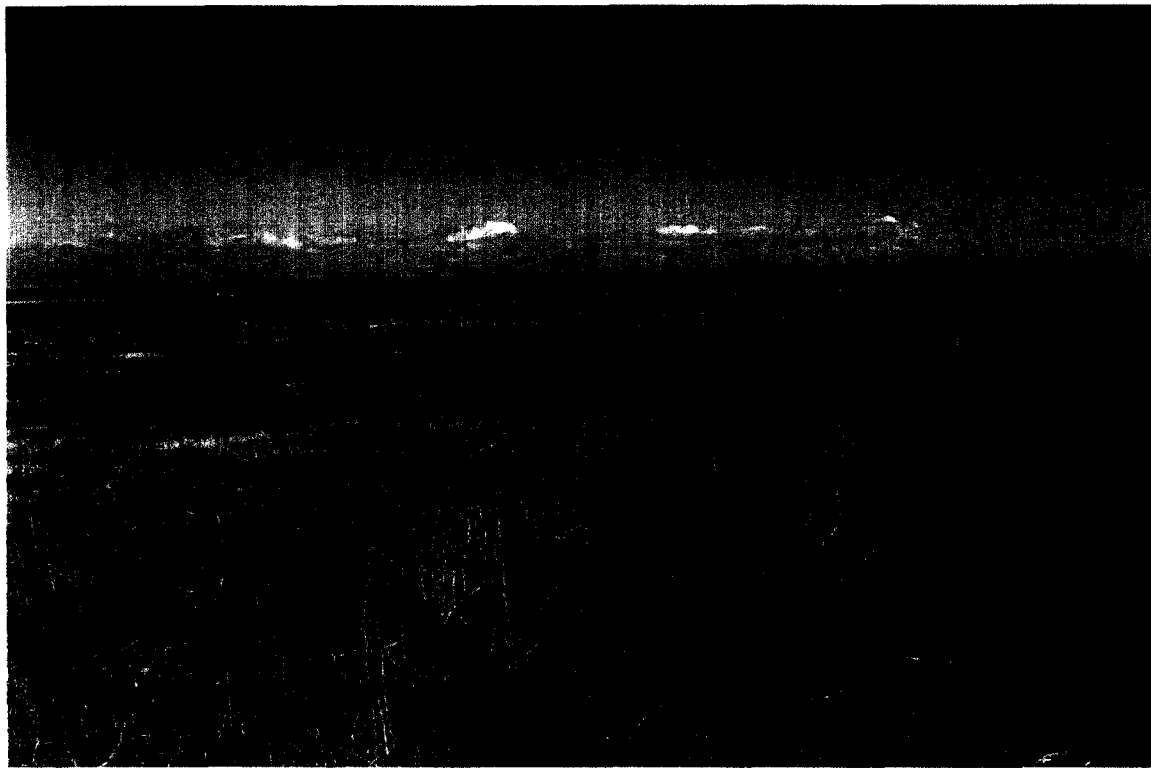
Security Gate at Entrance

Entrance Gate Looking North

SW Corner of East 80 Looking Northeast

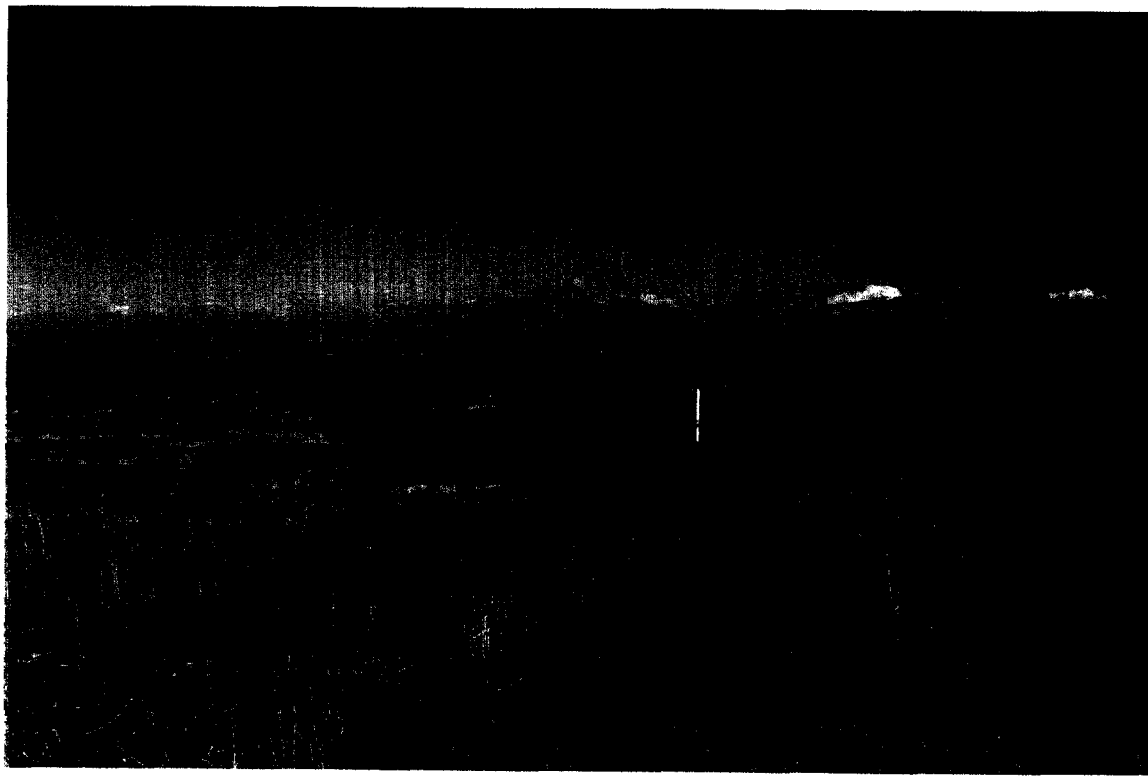
SW Corner of East 80 Looking North

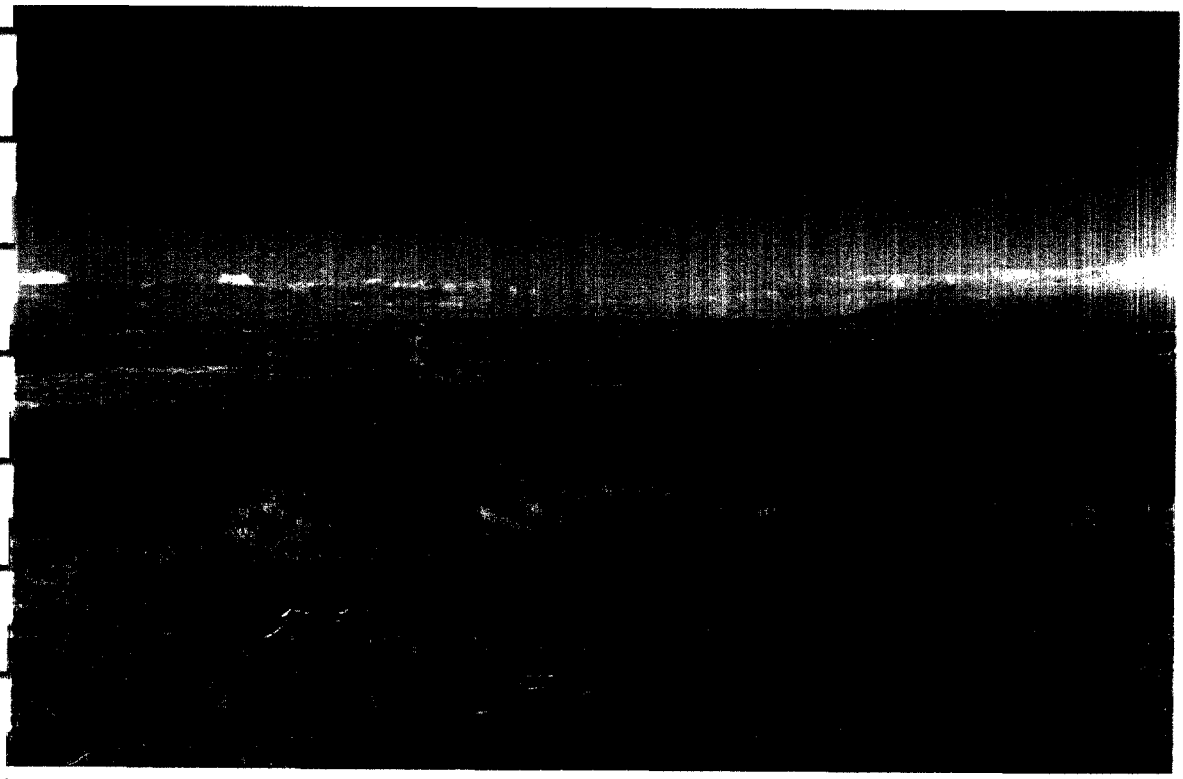
SW Corner of West 80 Looking East



SW Corner of West 80 Looking North

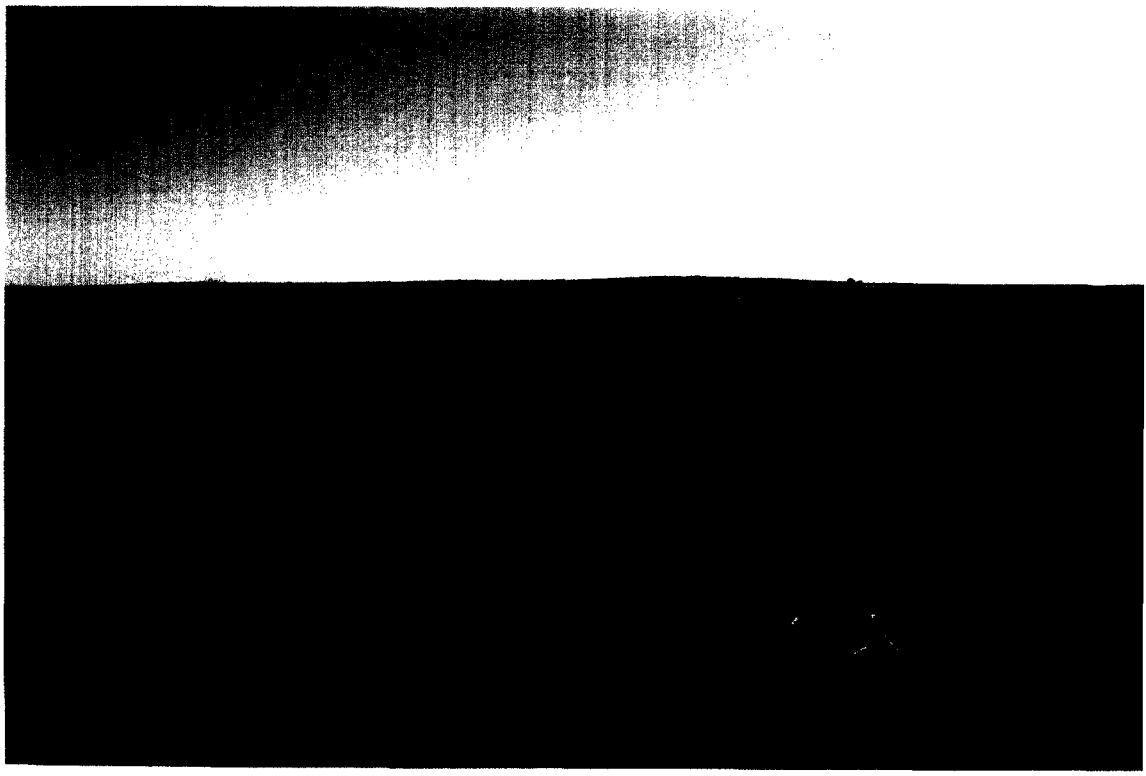
SW Corner of West 80 Looking Northeast

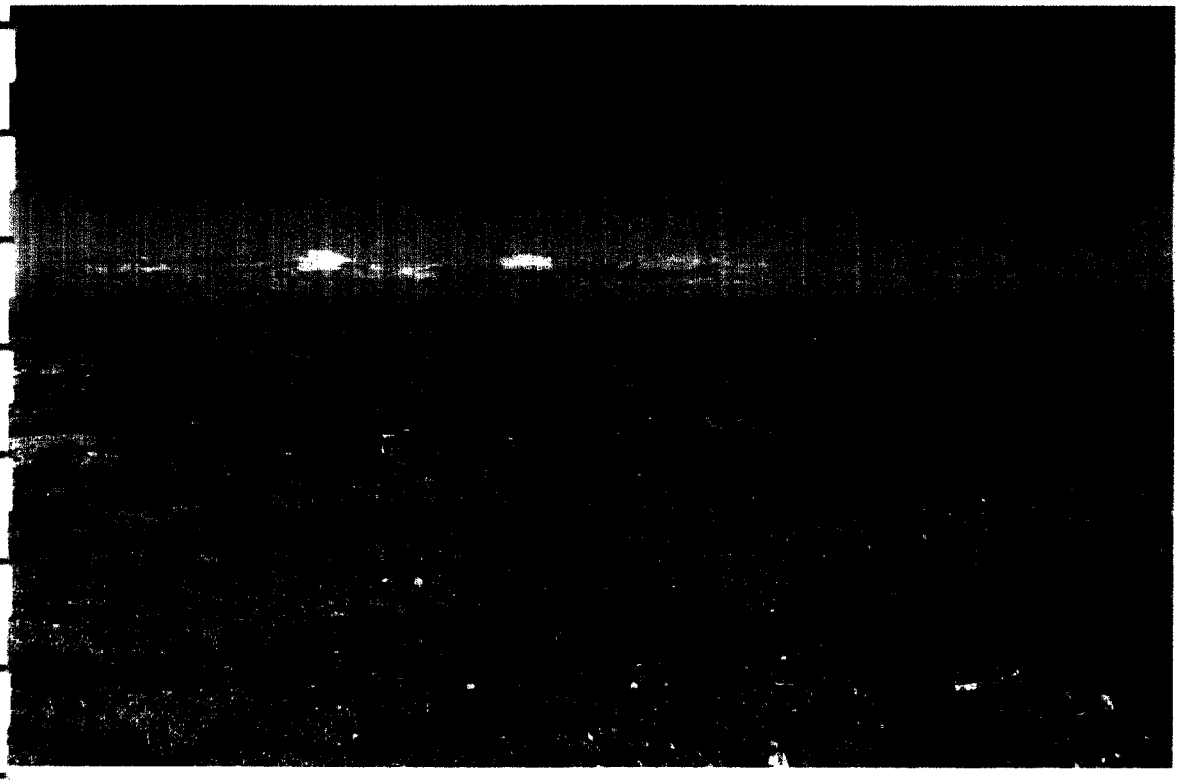




NW Corner of West 80 Looking East

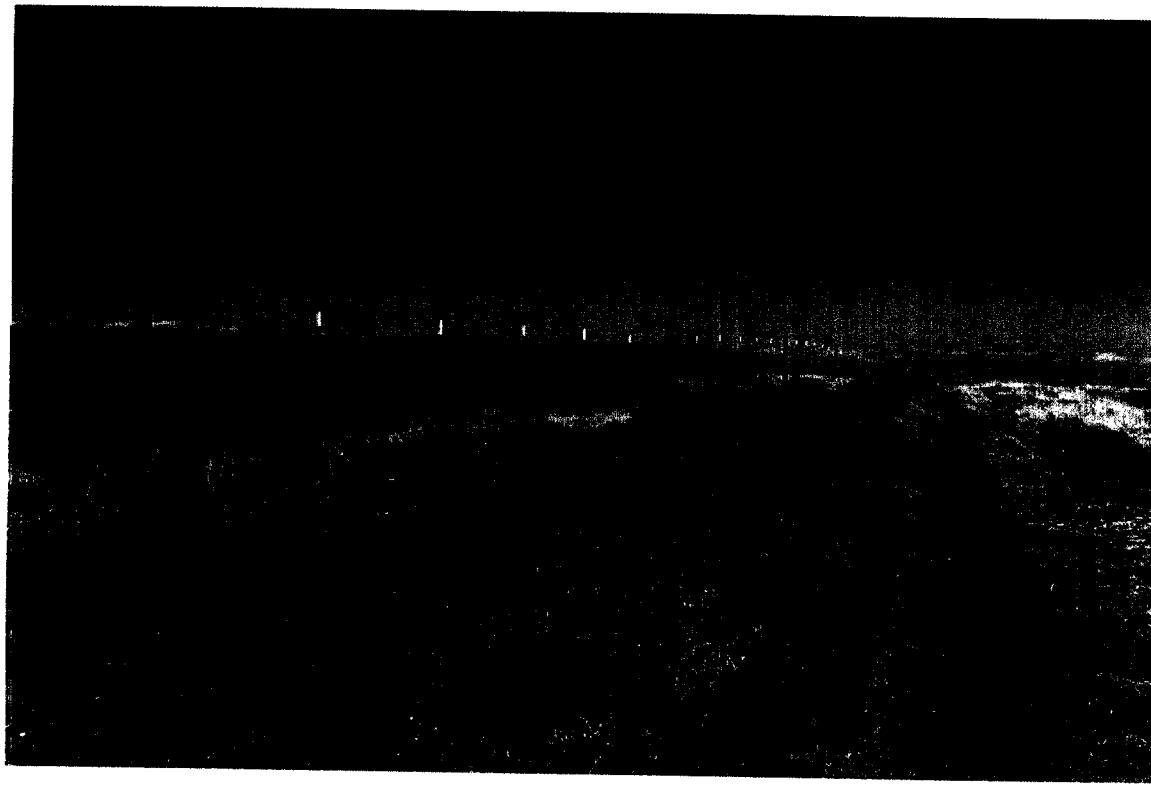
NW Corner of West 80 Looking South

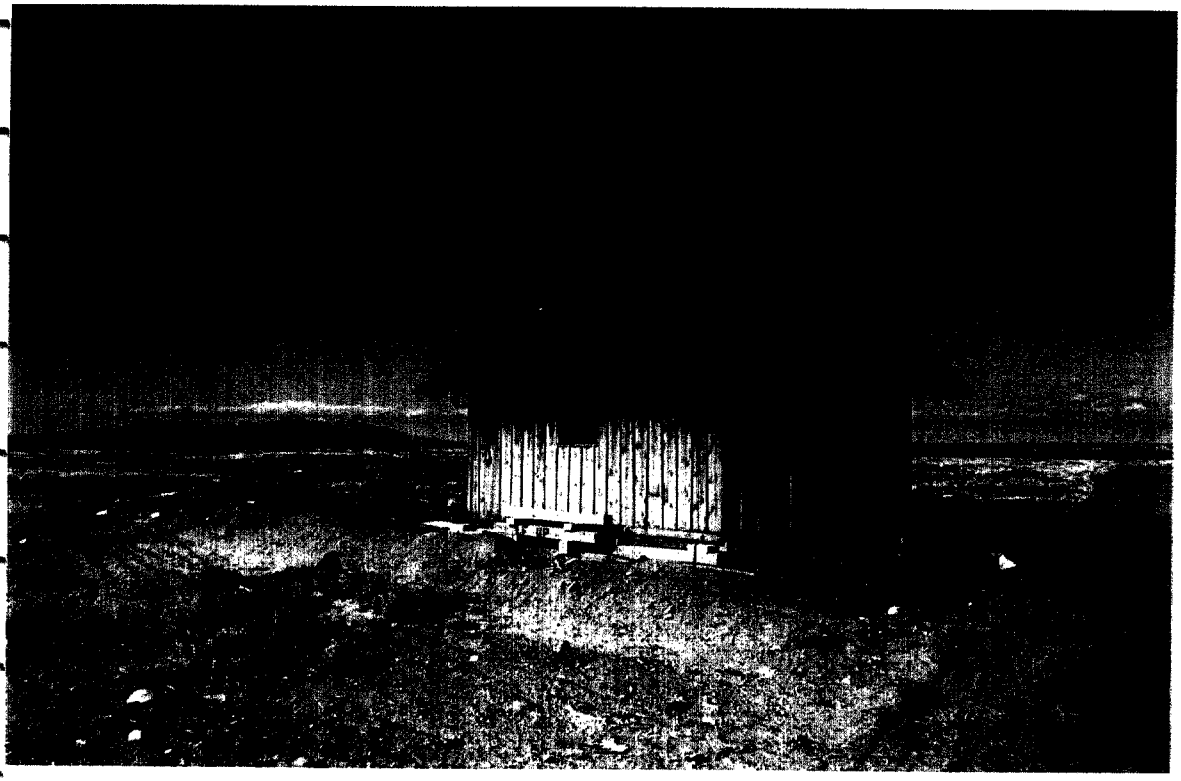




Typical Cell Inside Landfarm
Remediated Soil

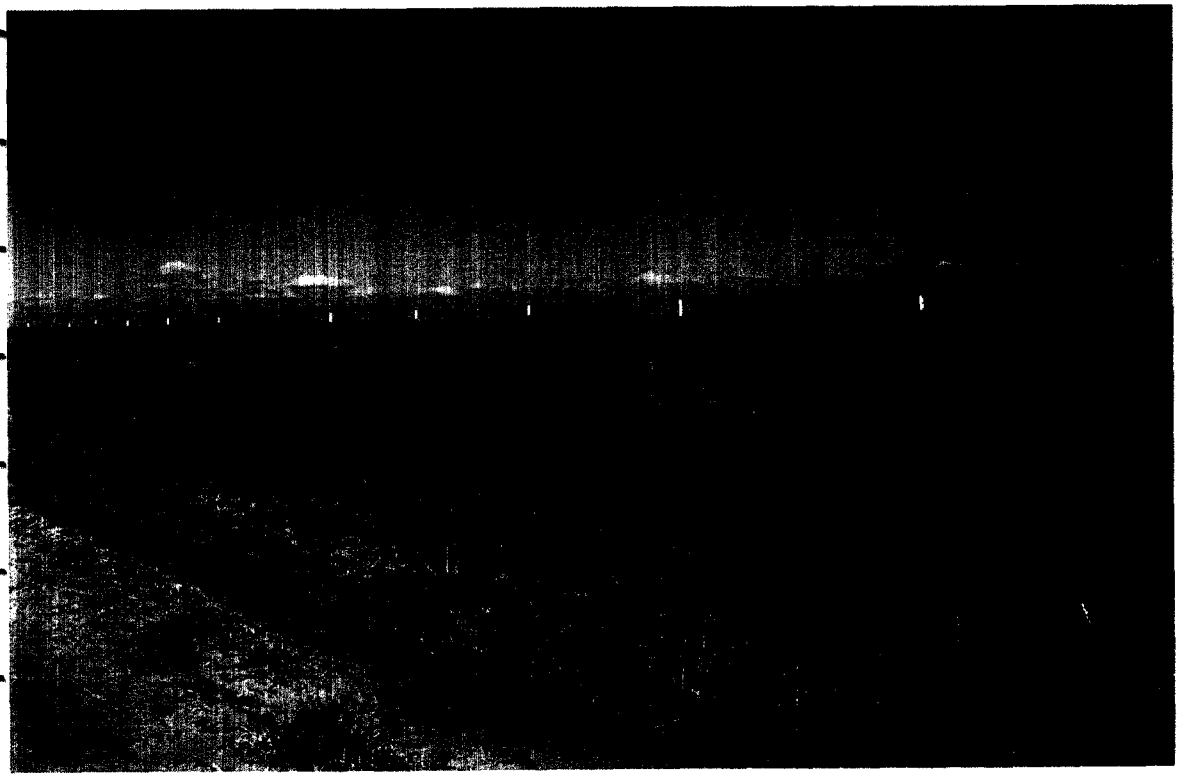
West Side Of East 80 with
4' Berm in View





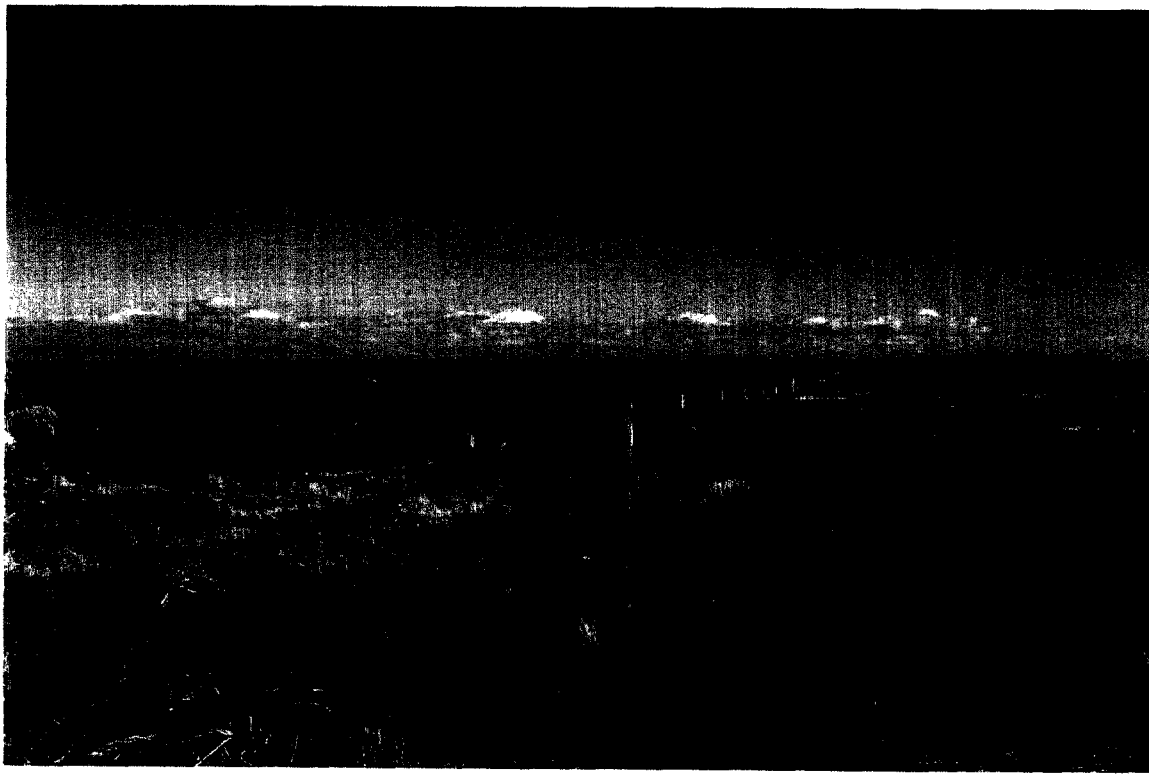
Landfarm Building For Tickets

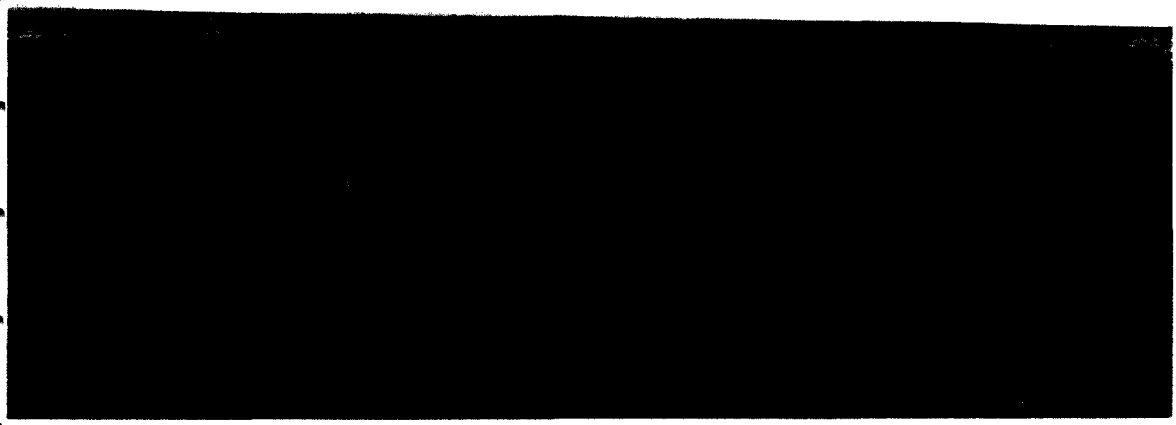
Landfarm Building For Tickets



East Side of East 80 with
4' Berm in View

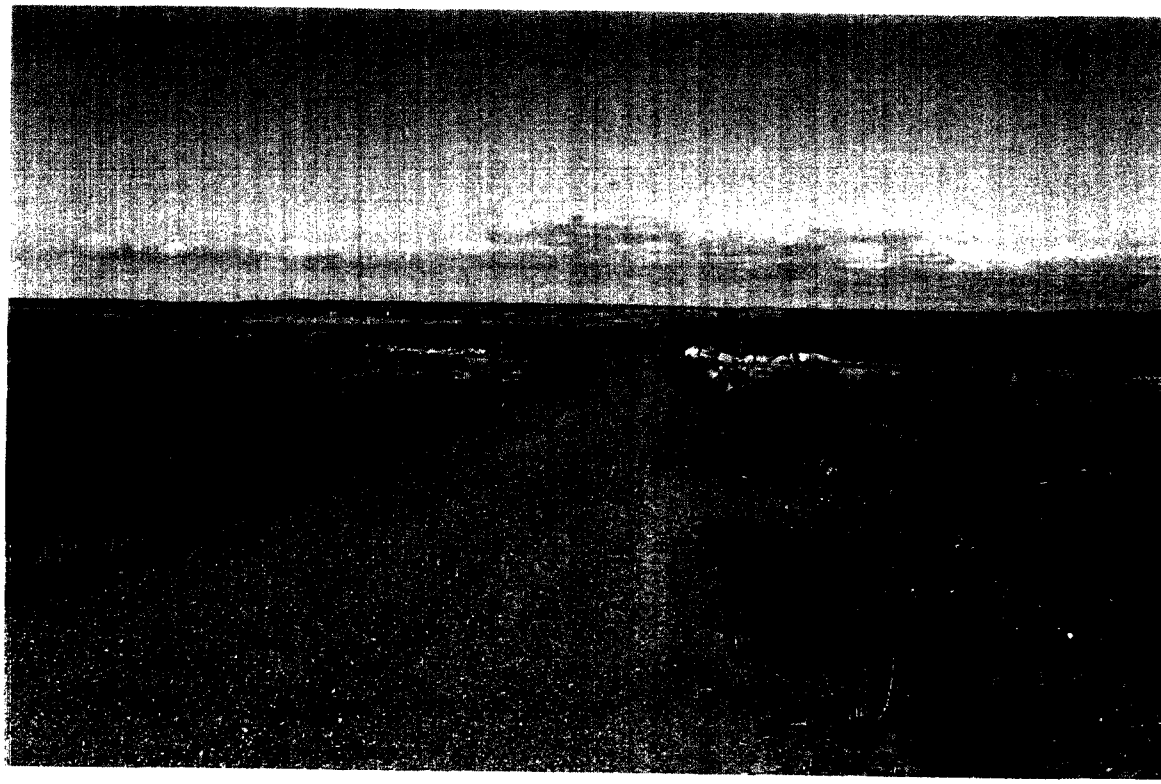
NW Corner of East 80
Looking East





NW Corner of East 80 Looking South

All-Weather Road Leading From Highway to Landfarm



PREVIOUS

APPROVALS

1999 & 2001

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

May 12, 1999

Shawn A. Adams
Contract Environmental Services, Inc.
P.O. Box 3376
Farmington, New Mexico 87499

Re: Approval to Operate - Oilfield E&P Waste Land Farm Facility, Section 18, Township 39 South, Range 26 East, San Juan County, Utah

Dear Mr. Adams:

The Division has inspected your land farm site at the above referenced location and has found it to be in compliance with current regulations. This facility is therefore approved for the remediation of oilfield contaminated soils in accordance with the submitted application. At all times this facility shall be operated in compliance with The Oil and Gas Conservation General Rules R649-1 et seq..

This permit is valid for the remediation of RCRA exempt Exploration and Production Wastes only. At no time is any non-exempt waste or refuse to be accepted, stored or remediated at the site. Current records shall be kept of all materials received by the facility. The Division shall be provided with quarterly reports which include the volume and types of materials received as well as the volumes of materials which have been determined to be successfully remediated during the quarter. You have indicated that at this time no nutrients or moisture will be added to improve degradation of the waste hydrocarbons. The Division shall be consulted prior to any changes in your operational procedure to allow for any needed amendments to this permit.

This approval does not exempt you from complying with all other federal, state and local rules and ordinances.

If you have any questions concerning this approval please contact Brad Hill or Gil Hunt at this office.

Sincerely,

John R. Baza
Associate Director, Oil and Gas

lwp
cc: San Juan County Commission

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

February 12, 2001

Shawn Adams
Contract Environmental Services Inc.
410 North Auburn
Farmington, New Mexico 87401

RE: Approval to Operate Land Farm Expansion, Section 18, Township 39 South, Range 26 East, San Juan, County, Utah

Dear Mr. Adams,

Expansion Area B located at the above referenced facility is approved for operations with the following conditions:

1. The materials disposed at this facility shall be mixed regularly until cleanup levels are attained.
2. No free oil or oily waste shall be allowed to escape the facility at any time.
3. DOGM shall be notified 24 to 48 hours prior to commencing construction.
4. Security fencing shall be installed and maintained around the perimeter of the facility including the expansion area similar to that in place at the current operation.
5. A containment berm shall be placed around the expansion area.

As is customary, your facility is subject to inspection by the Division of Oil, Gas & Mining at any time that DOGM personnel are in the area. Representatives of the Division may contact you about visits or inspections and may schedule these in advance with a designated person from your organization.

Questions concerning this approval can be directed to Brad Hill at (801) 538-5315, or Mike Hebertson at (801) 538-5333, in the Salt Lake office.

Sincerely,

John R. Baza
Associate Director

er

cc: San Juan County Planning Office
B.L.M., Monticello, Utah

FINANCIAL

ASSURANCE

Form 4E

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

received 5/12/99

BOND NUMBER NGL43029606

SURETY BOND
EXPLORATION AND PRODUCTION WASTE DISPOSAL FACILITY

KNOW ALL MEN BY THESE PRESENTS:

That we (operator name) Contract Environmental Services, Inc. as Principal, and

(surety name) Hanover Insurance Company as Surety, duly authorized and qualified to do business in the State of Utah, are held and firmly bound unto the State of Utah in the sum of:

ten thousand dollars ($ 10,000.00)

lawful money of the United States, payable to the Director of the Division of Oil, Gas and Mining, as agent of the State of Utah, for the use and benefit of the State of Utah for the faithful payment of which we bind ourselves, our heirs, executors, administrators and successors, jointly and severally by these presents

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, WHEREAS the Principal is or will be engaged in the construction and/or operation of a waste disposal facility in the State of Utah, for the purpose of disposal of exploration and production wastes for the following described facility and land:

Facility: Commercial Landfarm

Section 18 Township: 39S Range: 26E

County San Juan, Utah

NOW, THEREFORE, if the Principal shall comply with all the provisions of the laws of the State of Utah and the rules, orders and requirements of the Board of Oil, Gas and Mining of the State of Utah, including, but not limited to the proper maintenance and operation of the above listed facility in such a manner as not to cause pollution of the waters of the state or other adverse environmental impacts, and upon abandonment of the facility and the proper closure of the facility site, then this obligation is void; otherwise, the same shall be and remain in full force and effect.

IN TESTIMONY WHEREOF, said Principal has hereunto subscribed its name and has caused this instrument to be signed by its duly authorized officers and its corporate seal to be affixed this

12th day of May, 19 99.

(Seal)

Principal

By Shawn Adams, President
Name and Title

IN TESTIMONY WHEREOF said Surety has caused this instrument to be signed by its duly authorized officers and its corporate seal to be affixed this

12th day of May, 19 99.

(Seal)

Surety (Attach Power of Attorney)

By Dennis Mathis, Attorney-in-Fact
Name and Title

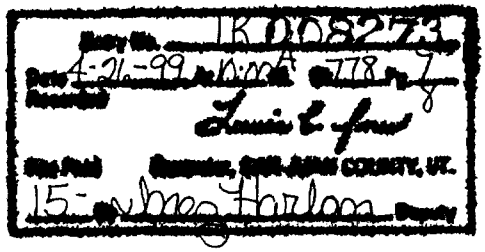
PROPERTY

OWNERSHIP

Mail Tax Notice To:
Shawn Adams
P.O. Box 3376
Farmington, NM 87499

RECORDED/[illegible] COUNTY, UTAH

99 APR 26 AM 10: 00



15-

WARRANTY DEED

REDBURN FLYING R RANCH,
a Colorado general partnership

Grantors of Dolores, County of Montezuma, State of Colorado, hereby Convey and Warrant to

CONTRACT ENVIRONMENTAL SERVICES, INC.

Grantee of Farmington, County of San Juan, State of New Mexico, for the sum of Ten Dollars and other valuable consideration the following described tract of land in San Juan County, State of Utah, to-wit:

T39S, R26E, SLBM
Section 18: E1/2NE1/4

EXCEPTING therefrom all oil, gas and minerals.

TOGETHER with a easement for ingress and egress across the West 30 feet of the SW1/4 of T39S, R26E, Section 17.

SUBJECT to Easements, Restrictions and Rights of Way however evidenced.

WITNESS the hands of said Grantors this 16 day of April, 1999.

Marvin D. Redburn, Sr.
individually by Marvin D. Redburn, Jr. personal Representative of the Estate of Marvin D. Redburn, Sr.

Marvin D. Redburn, Jr.,
as Successor Trustee of the Marvin D. Redburn Sr. Family Trust, as partner

Vivian Redburn, Partner

Marvin D. Redburn, Jr.
individually

Marvin D. Redburn, Jr.,
as Trustee of the Marvin D. Redburn Jr. Family Trust, as partner

#39S26E180000

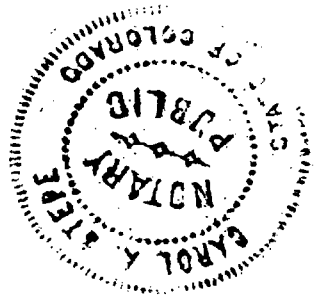
South Eastern Utah
Title Company
Order No. 33610-JJ

STATE OF COLORADO)
COUNTY OF MONTEZUMA)

On this 16 day of April, 1999, personally appeared before me, Marvin D. Redburn Jr., as personal representative of the Estate of Marvin D. Redburn, Sr. and as successor trustee of the Marvin D. Redburn Sr. Family Trust, dated June 21, 1973, as amended January 25, 1985, as partner, Vivian Redburn as partner and Marvin D. Redburn Jr., individually and as trustee of the Marvin D. Redburn Jr. Family Trust dated June 20, 1975, as partner, who being by me duly sworn did say that they is the partners of Redburn Flying R Ranch, a Colorado general partnership and that the foregoing instrument was signed in behalf of said partnership by authority of the Articles of said Partnership, and said Marvin D. Redburn, Sr., Vivian Redburn and Marvin D. Redburn Jr. duly acknowledged to me that said partnership executed the same.

Notary Public
Residing at: Dolores, Colorado

My Commission expires: 3/8/02



8

E 060741 B 0785 P
Date 11-FEB-2000 9:19am
Fee: 15.00 Check
LOUISE C JONES, Recorder
Filed By IH
For SEUTC
SAN JUAN COUNTY CORPORATION

Mail Tax Notice To:
Shawn Adams
P.O. Box 3376
Farmington, NM 87499

15-

WARRANTY DEED

REDBURN FLYING R RANCH,
a Colorado general partnership

Grantors of Dolores, County of Montezuma, State of Colorado, hereby Convey and Warrant to

CONTRACT ENVIRONMENTAL SERVICES, INC.

Grantee of Farmington, County of San Juan, State of New Mexico, for the sum of Ten Dollars and other valuable consideration the following described tract of land in San Juan County, State of Utah, to-wit:

T39S, R26E, SLBM
Section 18: W1/2NE1/4

EXCEPTING therefrom all oil, gas and minerals.

TOGETHER with a easement for ingress and egress across the West 30 feet of the SW1/4 of T39S, R26E, Section 17.

SUBJECT to Easements, Restrictions and Rights of Way however evidenced.

WITNESS the hands of said Grantors this 10th day of January, 2000.

Marvin D. Redburn, Sr.
individually by Marvin D. Redburn, Jr. personal Representative of the Estate of Marvin D. Redburn, Sr.

Marvin D. Redburn, Jr.,
as Successor Trustee of the Marvin D. Redburn Sr. Family Trust, as partner

Vivian Redburn, Partner

Marvin D. Redburn, Jr.
individually

Marvin D. Redburn, Jr.,
as Trustee of the Marvin D. Redburn Jr. Family Trust, as partner

39S26E180600

-1-

South Eastern Utah
Title Company
Order No. [illegible]

STATE OF COLORADO)
COUNTY OF MONTEZUMA)

On this 10th day of January, 2000, personally appeared before me, Marvin D. Redburn Jr., as personal representative of the Estate of Marvin D. Redburn, Sr. and as successor trustee of the Marvin D. Redburn Sr. Family Trust, dated June 21, 1973, as amended January 25, 1985, as partner, Vivian Redburn as partner and Marvin D. Redburn Jr., individually and as trustee of the Marvin D. Redburn Jr. Family Trust dated June 20, 1975, as partner, who being by me duly sworn did say that they is the partners of Redburn Flying R Ranch, a Colorado general partnership and that the foregoing instrument was signed in behalf of said partnership by authority of the Articles of said Partnership, and said Marvin D. Redburn, Sr., Vivian Redburn and Marvin D. Redburn Jr. duly acknowledged to me that said partnership executed the same.

Notary Public
Residing at: Dolores, Co
Montezuma Cty.

My Commission expires:
2/8/02

UTAH DOGM

FINDINGS OF FACT

PREVIOUS PERMITS

DIVISION OF OIL, GAS AND MINING
COMMERCIAL DISPOSAL PIT OR LAND FARMING

PERMIT
STATEMENT OF BASIS

Applicant: Contract Environmental Services Inc. **Facility:** Land Farm Expansion

Location: T93S, R26E, S18 W ½ NE ¼ , San Juan Co. **Review Date:** February 9, 2001

Ownership Issues:

The proposed extension to this facility is located in W ½ NE ¼ Section 18, T39S, R26E, San Juan County, Utah, on 80 acres of Fee land owned by the applicant. A Warranty Deed has been supplied as proof of ownership. At the time that the first phase of this project was approved the 80 acres of phase B were not owned by the operator, however phase B was approved as part of the overall project.

Site Characteristics:

The surface formation in this part of eastern San Juan County is Cretaceous age Dakota Sand Stone. It is a light tan, nearly white, to light gray. The sands are medium to fine grained and moderately sorted. The soils in this area are a medium brown to reddish brown and very clayey. The clays are of a good compacting nature making an overall moderately permeable soil.

The site slopes gently from west to east across the entire surveyed area with about 20 feet of elevation difference from the high point on the north, to the low area on the south. There are only minor drainages that bisect the property from southwest to northeast. They are of such low relief that they pose no actual impact to the overall project and shall be farmed across as if they were not there.

The site is within a mile of Hovenweep National Monument Headquarters, but is lower in elevation and cannot be seen from the monument. It is an area that is mostly flat mesa top land, with steep canyons that bisect the area where erosion has cut through the Dakota Sandstone into the Morrison formation. The closest of these canyons is to the west about one half mile, and it eventually intersects with Cross Canyon about two miles northwest of this site.

Surface and Ground Water Protection:

There is no surface water within a mile of this location. There is a water seep within the confines of the Monument, which exits at the base of the Dakota Sand south and west from the Rangers Station. The monument obtains its water from a well that produces from about 1,440 feet, and there is no know water within 1,000 feet of the surface. The

noted seep does not actually flow water but is more of a wet puddle below the overhang. In relation to the land farm the seep is about 150 feet stratigraphically lower than the surface at the land farm site.

There are no other points of diversion in the Division of Water Rights database within 12,000 feet of this site, and the US Parks services is greater than 10,000 feet from the Land Farm operations.

The site shall be monitored during all phases of construction and routine (monthly) inspection of the operating procedures and shall continue after construction is completed.

Operations and Waste Handling:

The entire operation shall be enclosed within a fence. The oily soils shall be farmed and composted within cells designated for that purpose, and the natural soils at the site shall be blended with the natural vegetation until the level of hydrocarbon in the soils decomposes to an acceptable level for other uses. Individual cells within the project are for use by the operator transporting oily waste to the site and the number of loads in each cell shall be accounted for.

The entire area shall be bermed around as a precaution and as a secondary containment measure to keep oily wastes from migrating off the project area. Oily waste will not be allowed to accumulate without being mixed and treated on a regularly scheduled basis. At this time there is no proposal to treat the waste with water or other enhancing nutrients to accelerate the bioremediation of the waste.

Bonding:

The Division of Oil Gas & Mining, holds a surety bond for this facility in the amount of $10,000, issued by Hanover Insurance. It is an A rated bond, and was reviewed in September of 2000.

Actions Taken and Further Approvals Needed:

Notice of this application has not been published since it is an expansion of an existing facility.

1. DOGM shall be notified 24 to 48 hours prior to commencing construction.
2. Security fencing shall be installed and maintained around the perimeter of the facility as already in use for the current operation.
3. A containment berm shall be placed around the facility.

Reviewer: K. Michael Hebertson Date: February 9, 2001

ORIGINAL

Typed Landfill Application Form

express

RECEIVED
04.04346
DEC 21 2004

UTAH DIVISION OF
SOLID & HAZARDOUS WASTE

Utah Class I and V Landfill Permit Application Form

Part I General Information APPLICANT: PLEASE COMPLETE ALL SECTIONS.

I. Landfill Type		II. Application Type		
☐ Class I ☒ Class V		☒ New Application ☐ Renewal Application		☒ Facility Expansion ☐ Modification

For Renewal Applications, Facility Expansion Applications and Modifications Enter Current Permit Number _____

III. Facility Name and Location

Legal Name of Facility
Contract Environmental Services, Inc. - Landfarm

Site Address (street or directions to site)				County
19 miles North of Aneth, UT- Just West of Hovenweep Mon.				San Juan County, U
City N/A	State	Zip Code	Telephone 505-330-4805 c	
Township 39S	Range 26E	Section(s) 18	Quarter/Quarter Section	Quarter Section NE 1/4
Main Gate Latitude N degrees 37° minutes 23.787'			Longitude W degrees 109° minutes 05.746'	

IV. Facility Owner(s) Information

Legal Name of Facility Owner
Contract Environmental Services, Inc.
Address (mailing)
410 N. Auburn Avenue

City	State	Zip Code	Telephone
Farmington	NM	87401	505-325-1198

V. Facility Operator(s) Information

Legal Name of Facility Operator
Contract Environmental Services, Inc.
Address (mailing)
410 N. Auburn Avenue

City	State	Zip Code	Telephone
Farmington	NM	87401	505-325-1198

VI. Property Owner(s) Information

Legal Name of Property Owner
Contract Environmental Services, Inc.
Address (mailing)
410 N. Auburn Avenue

City	State	Zip Code	Telephone
Farmington	NM	87401	505-325-1198

VII. Contact Information

Owner Contact	Title
Shawn A. Adams	Owner / Manager

Address (mailing)
410 N. Auburn Avenue

City	State	Zip Code	Telephone
Farmington	NM	87401	505-325-1198

Email Address	Alternative Telephone (cell or other)
Landfarms@msn.com	505-330-4805 cell

Operator Contact	Title
Shawn A. Adams	Owner / Manager

Address (mailing)
410 N. Auburn Avenue

City	State	Zip Code	Telephone
Farmington	NM	87401	505-325-1198

Email Address	Alternative Telephone (cell or other)
Landfarms@msn.com	505-330-4805 cell

Property Owner Contact	Title
Shawn A. Adams	Owner / Manager

Address (mailing)
410 N. Auburn Avenue

City	State	Zip Code	Telephone
Farmington	NM	87401	505-325-1198

Email Address	Alternative Telephone (cell or other)
Landfarms@msn.com	505-330-4805 cell

Utah Class I and V Landfill Permit Application Form

Part I General Information (Continued)

VIII. Waste Types (check all that apply)

☐ All non-hazardous solid waste (see R315-315-7(3) for PCB special requirements) **OR** the following specific waste types:

Waste Type	Combined Disposal Unit	Monofill Unit
☐ Municipal Waste	☐	☐
☐ Construction & Demolition	☐	☐
☐ Industrial	☐	☐
☐ Incinerator Ash	☐	☐
☐ Animals	☐	☐
☒ Asbestos	☒	☒
☐ PCB's (R315-315-7(3) only)	☐	☐
☐ Other _____	☐	☐

IX. Facility Area

Facility Area	160	acres
Disposal Area	160	acres
Design Capacity		
Years	5-10	
Cubic Yards		
Tons		

X. Fee and Application Documents

Indicate Documents Attached To This Application

☐ Application Fee: Amount $

☒ Facility Map or Maps ☒ Facility Legal Description ☒ Plan of Operation ☒ Waste Description
☒ Ground Water Report ☒ Closure Design ☒ Cost Estimates ☒ Financial Assurance

Class V Special Requirements

☒ Documents required by UCA 19-6-108(9) and (10)

I HEREBY CERTIFY THAT THIS INFORMATION AND ALL ATTACHED PAGES ARE CORRECT AND COMPLETE.

	Title	Date
Signature of Authorized Owner Representative Shawn A. Adams Name typed or printed	Owner / Manager	12-15-04
	Address #25 CR 3905, Aztec, NM 87410	
Signature of Authorized Land Owner Representative (if applicable) Shawn A. Adams Name typed or printed	Owner / Manager	12-15-04
	Address #25 CR 3905, Aztec, NM 87410	
Signature of Authorized Operator Representative (if applicable) Shawn A. Adams Name typed or printed	Owner / Manager	12-15-04
	Address 410 N. Auburn Avenue Farmington, NM 87401	

Response To DSHW Question 1-6

December 18, 2004

State Of Utah
Department Of Environmental Quality
Division Of Solid & Hazardous Waste
Mr. Dennis R. Downs
P O Box 144880
Salt Lake City, UT 84114-4880

RE: Response To Request For Additional Information Number 1, dated November 29, 2004

Dear Mr. Downs,

In efforts to continue the application process for a solid waste asbestos landfill, Contract Environmental Services, Inc. (CES) offers the following responses to your questions recently submitted.

Question #1 - In response to UCA 19-6-108(10) as evidence of a proven market CES submits five (5) Asbestos Surveys in this section. Of the five (5) surveys received all five (5) listed they had a need in the future for asbestos disposal in the Four Corners area. These five (5) surveys represent one (1) abatement contractor, and some thirty-five (35) schools and one (1) Ute Mountain Ute Tribe.

The price charged will be $ 30.00 per cubic yard and will be calculated based on the container it is delivered in. This price does not include any applicable taxes that may apply.

Based on our recent survey of the limited survey there appears to be a great need for this type of facility in the Four Corners area. CES has listed the only other facilities known to us that accept friable and/or non-friable asbestos waste in this area in Question #7.

Public benefits would include less transportation money being spent which could translate into more asbestos being removed and properly disposed of for the same dollar.

Keers, Inc. of Mountainair, NM would not be the only choice of a disposal facility for asbestos waste from the Four Corners. This also could reduce or eliminate an unfair bid advantage since Keers, Inc. is also an asbestos removal contractor. Companies are reluctant to send their asbestos waste to Keers, Inc. because they are helping their competition and they would now have a place to take asbestos waste.

Additional benefit would be a secondary purpose for the remediated oil and gas (O&G) and underground storage tank (UST) waste soil. It can now benefit the asbestos disposal by providing needed cover material and lots of it.

Additional benefit would be placing asbestos-containing building materials removed from the populated areas to a remote, isolated area that is very sparsely populated.

The Air Quality Bureau has staff already trained in asbestos management and inspection and no further training would be necessary to manage a facility such as the proposed asbestos landfill.

CES believes that no other site for the management of asbestos waste could be less detrimental to the public health, safety and quality of the environment than the proposed acreage being considered.

CES has operated the Oil & Gas Landfarm under a permit from the Division Of Oil, Gas & Mining (DOGM) since 1999. During that 5 ½ years CES has not received any Notice Of Violation (NOV) or warnings or adverse observation from DOGM staff. In fact, DOGM has always given CES a two (2) thumbs up gesture and used our facility as examples to others. CES has excellent paperwork and record keeping. This same kind of award-winning operation will be divested in the asbestos landfill. The same

attention to detail and careful operation will continue. Every truck that has brought waste soil to the CES facility was carefully placed and marked with a global positioning survey (GPS) instrument to pinpoint its location at delivery. No loads have been accidentally placed in the wrong cell or location to date. A delivery manifest has been issued from the smallest to the largest load received. CES has passed audits with flying colors from ExxonMobil, ChevronTexaco, US Oil & Gas, Rim Southwest (formerly Harken SW), Navajo Nation Oil & Gas, Basin Exploration, Ute Mountain Ute Tribe, Intrepid Oil & Gas, Journey Oil & Gas, TexacoElkhorn Gas Plant, Montezuma Well Service, Weeminuche Construction Authority, and others. Never in the history of the Landfarm has CES received a verbal or written comment of dissatisfaction from even one (1) of its customers.

Question #2 - Please See Attached Typed Application Form (Front)

Question #3 - Section Titled "San Juan County Utah Information" has been removed as requested.

Question #4 - The four (4) foot dike completely surrounds the facility and the asbestos landfill will be completely contained within this dike at all times. CES believes the dike is at least four (4') feet high in all places and that it is sufficient in height to prevent a 25 year storm event. Each year a road grader is used to correct any wind or water erosion that might affect the dike. The surface area is essentially flat with approximately twenty (20') feet of elevation change over ¼ to ½ mile. There are no sharp arroyas or areas of erosional scarring found within the proposed site. The asbestos landfill area will be excavated to a depth of approximately ten (10') feet below grade. It will be ramped from the entrance to the Landfill area which may be a length of 200' or more. A storm event could place water at the base of the landfill area but it should only be water from the ramp. A small berm will be placed at the Landfill perimeter and it will be dug in such a way as to prevent large quantity surface water runoff. Because of the dike the furthest water could gather on a worst case scenario would be one-half (1/2) mile.

*** Insert Calculations Here

Estimation of runoff -- the rational formula for quantity of stormwater runoff is the following:

$$Q = CIA$$

Where Q = the peak runoff from rainfall, ft^3/sec
Where C = runoff coefficient (no units)
Where I = rainfall intensity, inches rain / hour
Where A = drainage area acres.

$$= 0.050\ (2.0\ inch/hr)\ (80\ acres)$$

$$= 80 \frac{(\text{acre} * \text{in}) * (1\ \text{hour}) * (1\ \text{ft}) * (43{,}560\ ft^2)}{\text{hour} \quad 3600\ \text{s} \quad 12\ \text{in.} \quad 1\ \text{acre}}$$

$$= 80.7\ ft^3/s$$

$$= \frac{(80.7\ ft^3)}{1\ \text{sec}} * \frac{(60\ \text{sec})}{1\ \text{min}} * \frac{(60\ \text{min})}{1\ \text{hour}} * \frac{(24\ \text{hrs})}{1\ \text{day}} = 6{,}972{,}480\ Ft^3/Day$$

Berm 4' tall over 80 acres will hold....

$$43560\ ft^2\ (80\ acres) = 3{,}484{,}800\ ft^2 * (4ft\ deep) = 13{,}939{,}200\ ft^3\ capacity$$

According to these calculations the four (4') foot dike on level ground would hold approximately double the thunderstorm event on a 25 year 24 hour storm dropping 2 inches of precipitation per hour. The estimation runoff formula was taken from the Handbook Of Environmental Engineering Calculations by C. C. Lee and Shun Dar Lin 1999. The formula was found on Page 1.481 formula (7.12a). The coefficient of runoff value was taken from this same text Page 1.482 Table 7.2 attached.

Question #5 - As I recall Hovenweep National Monument water source 1400' below grade – only a seep projected upgradient NW one mile gave an approximate depth to groundwater at the CES facility to 1100'. I think Brad Hill of DOGM asked the staff at Hovenweep Monument but I can't be sure since it was 5-6 years ago. I had nothing in my paperwork file that supported that depth. I also searched five (5) oil and gas wells located in the same township and range and they have all been plugged and abandoned and I could not extract their surface casing depths from their well information files. I also searched the groundwater maps with the State website and could not get any good information. I will research this further as this application moves forward. Windmill water well 2.5 miles south of Landfarm may have been another source used. It has been too long since we determined it.

Question #6 - Site Inspections will cover soil conditions overlying asbestos bags affected by wind? Water? Rodents? Also cover water visible at working face of asbestos landfill (since it will be entrenched) Plastic visible yes or no, date re-covered, secondary cover added, depth, soil type used, UST remediated, oil & gas remediated, virgin, topsoil placed, seeded, vegetation taking hold, types of plants noticed, date, time, inspector, recommendations response action time, equipment used to remedy, date satisfactorily corrected, equipment operator, respirator protection required, water spray added to load during unloading, berm status, in-place, active, need repair, weather conditions, visitor sign-in log, cubic yards unloaded, condition.

*** Insert Site Inspection Form Here

Landfill Inspection Form

ASBESTOS LANDFILL SITE INSPECTION FORM

Soil conditions overlying asbestos bags ? Affected by erosion ? □ yes □ no
Affected by wind ? □ yes □ no
Affected by rodents ? □ yes □ no
Landfill cell(s) needing attention _____ remedied by what type of equipment

_____

_____

Water visible at Asbestos Landfill cell working face ? □ yes □ no
Plastic visible at Asbestos Landfill cell working face ? □ yes □ no
Date re-covered _____ Secondary cover added _____
□ UST remediated soil □ O & G remediated soil □ Virgin soil from LF

Topsoil replaced ? _____ Amount _____ Seeded _____
Vegetation taking hold? _____ describe _____

_____
Types of plants noticed? _____
Describe condition? _____

Date: _____ Time: _____ Inspector: _____
Recommended response action _____

_____

_____
Equipment used to remedy: _____
Operator: _____ Respirator protection required ? _____

Water spray added while unloading? _____
Berm Status ? _____

_____

_____
Closest LF cell to berm location needing attention? _____

Weather conditions _____

_____
Visitor Sign In _____ _____ _____

Cubic yards unloaded _____ Bags _____
Condition _____

_____

Other Comments : _____

_____

_____

_____

_____

Response To DSHW Questions 7-8

Solid Waste Facility Closure Plan

Question #7 - CES proposes that DOGM and SHWCB both accept the bond worded differently so either agency could control the bond. It does however affect the same land for both asbestos and Oil & Gas and UST waste. I have been previously told two bonds would not be necessary. I have even been told if I had two (2) separate facilities one bond would work for either since it is unlikely that both sites would go into default at the same time. It does not matter to CES who controls the bond so the two agencies DOGM, SHWCB should decide together independent of CES.

Question #8 - Develop closure and post closure plans

Solid Waste Facility Closure Plan

Daily cover over the asbestos-containing building materials will be 6" – 12". This material will be compacted with equipment tires. Daily cover material may be remediated Oil & Gas soil, remediate UST soil or virgin soil as needed. The Landfill will be closed in phases. It will be our goal to close each Landfill cell as it is filled instead of waiting to the end of the Landfill life. As we have stated the working face of the Landfill will be approximately fifty (50') foot wide. The Landfill cell may run continuously crossing internal roads and/or Landfarm cells previously established. The final cover will be an additional 12" – 18" of fill material compacted with equipment tires. Finally approximately 6" of topsoil will be placed un-compacted over that. Leveling and seeding will then take place with an approved seed mix. The seed mix will be drilled into the surface soils to establish a vegetative cover. When closure is complete we should have at least 18" of compacted fill covered by at least 6" of topsoil that has been seeded. It is our plan to have the Landfill cell closed or ready for closure within a 200' distance of the working face. Therefore only a small portion of the Landfill cell will have daily cover only over the deposited asbestos.

Our projections show that of the 18 Landfarm cells in the first 80 acres we could develop 9 miles of 50' wide landfill cell. If both 80 acres are fully utilized it could develop 18 miles of 50' wide Landfill cell.

The expected site life seems to exceed the five (5) year permit life, thereby requiring one or more renewals. When CES is nearing a Landfill cell closure possibly within the last 10% of that cell the notification to the Executive Secretary will be announced. That should be some sixty (60) days before the anticipated last receipt of waste.

A new Landfill cell excavation will already be started so there is always a place for receiving asbestos waste. Within sixty (60) days of starting the new Landfill cell, CES anticipate receiving closure on the previous Landfill cell. It is estimated that not more than 180 days will ever be required to close the previous Landfill cell after beginning taking waste in the new Landfill cell.

Total area requiring cover, final cover, topsoil and seeding could be a maximum of 109 acres if both 80 acre pieces are utilized. CES does not believe there will be that kind of demand for asbestos disposal. We anticipate filling three(3) Landfarm cells per year or just over nine (9) acres, therefore the first (east) 80 acres would at least past the five (5) year original permit. CES will not know the exact demand until the facility is marketed and opened.

Total Quantity Of Waste

18 miles of fifty (50') foot trench 7.5 ' tall	=	35,640,000 ft3
	=	1,320,000 cubic yards
	=	12,110 of the largest (53') truck trailers
The first 80 acres alone would be	=	17,820,000 ft3
	=	660,000 cubic yards
	=	6,055 of the largest (53') truck trailers

Final cover will be installed using a front loader. Since asbestos-containing construction debris will compress differently in different places, the loader operator will have the job of covering the waste evenly.

Post Closure Plan

When complete we should end up with at least 18" compacted soil and 6" of soil to support the vegetative cover. QA/QC will be periodically measured across the Landfill cell as necessary. CES will utilize a third-party for this testing.

A tractor will be used to establish seedbed preparation (if necessary) and seeds will be placed by a seed drill behind the tractor or broadcasting. CES will utilize shallow-rooted plants for the vegetative cover perhaps grass seed. CES will use a P.E. registered in Utah to certify closure was done in accordance with the closure plan. This may take place for each 80 acres instead of in phases as necessary.

CES will then file a plat with the County within sixty (60) days following certification of closure.

Post Closure Plan

When the Executive Secretary approves the closure the Post-Closure activities will begin. Maintenance will consist of quarterly walking through the Landfill cell areas and monitoring for established vegetation and erosion from wind or water. Areas found to be deficient will be corrected using a front loader for wind or soil erosion and broadcasting or drilling seed if vegetation is missing. CES will establish reseeding to the level found in the surrounding acreage or better. Deficiencies will be corrected within the next thirty (30) days following inspection – depending on severity.

At this point there are no plans to utilize the property during Post Closure. CES reserves the right to make amendments to this as necessary. Post Closure monitoring reports will be kept at the CES office and we will provide the name, address, and phone of the person responsible when Post Closure is initiated. Annual reports will be provided and following completion of the Post Closure period a P.E. licensed in Utah will certify the Post Closure activities were conducted in accordance with this plan. Post Closure documentation will be placed in the operating record and forwarded to the Executive Secretary.

Question #9 - Develop and closure cost estimate and post closure cost estimate

Solid Waste Facility Closure Cost Estimate

For vegetative repair based on 10% area per year would translate into 1 day with a tractor and implement. As before.....total cost per cell $ 528.00

To mobilize and demobilize loader..... $ 800.00
To mobilize and demobilize tractor ..... $ 800.00
To mobilize and demobilize Implement ..... $ 800.00
To mobilize and demobilize road grader ..... $ 800.00

To analyze 30 sample based on 5 samples for each landfill strip would be for 6 rows per each LF cell running TPH by 418.1 and GRO, DRO by 8015M per cell would cost $ 150.00 per analysis .....total cost per cell $ 4500.00
Sample shipments .....total cost per cell $ 200.00

Fertilizer needs 1 day with a tractor and implement which would translate to .....
.....total cost per cell $ 528.00

Fertilizer costs = $ 150.00 per acre.....total cost per cell $ 450.00

Seed costs = $ 150.00 per acre .....total cost per cell $ 450.00

Based on Tractor / implement rental of $ 528.00 per day

Based on Loader / Operator rental of $ 816.00 per day

Based on Road grader / Operator rental of $ 816.00 per day

Record keeping and reporting

1 consultant 4 days @ $ 400.00 per day .....total cost per cell $ 1,600.00

Site inspections 4 days @ $ 400.00 per day .....total cost per cell $ 1,600.00

Total Closure Cost Per LF cell ..... $ 53,016.00

Total of 18 LF cells if fully utilized per 80 acres..... $ 954,288.00

Total of 36 LF cells if fully utilized per 160 acres ..... $ 1,908,576.00

Post Closure Cost Estimate

Post Closure Cost Estimate

Erosion repair per year	$ 816.00
Vegetative repair per year	$ 528.00
Mobilize / Demobilize both	$ 1,600.00
Fertilizer 1 day	$ 528.00
Cost of fertilizer (3 acres)	$ 450.00
Road grader / operator (dike)	$ 816.00
Mobilize / demobilize	$ 800.00
1 consultant 4 days @ $400.00	$ 1,600.00
Site Inspection 4 days @ $ 400.00	$ 1,600.00
10 lab samples TPH, 8015M	$ 1,500.00
Total post closure costs per year	$ 10,238.00
Total post closure after 30 years	$ 307,140.00
Engineer for certification 4 days @ 500(30 yrs)	$ 60,000.00
Total post closure cost estimate	$ 367,140.00

Question #16
315-302-2(f) **Contingency Plan**

Since there are no explosive gases possible at this facility CES addresses the failure of run-off containment system.

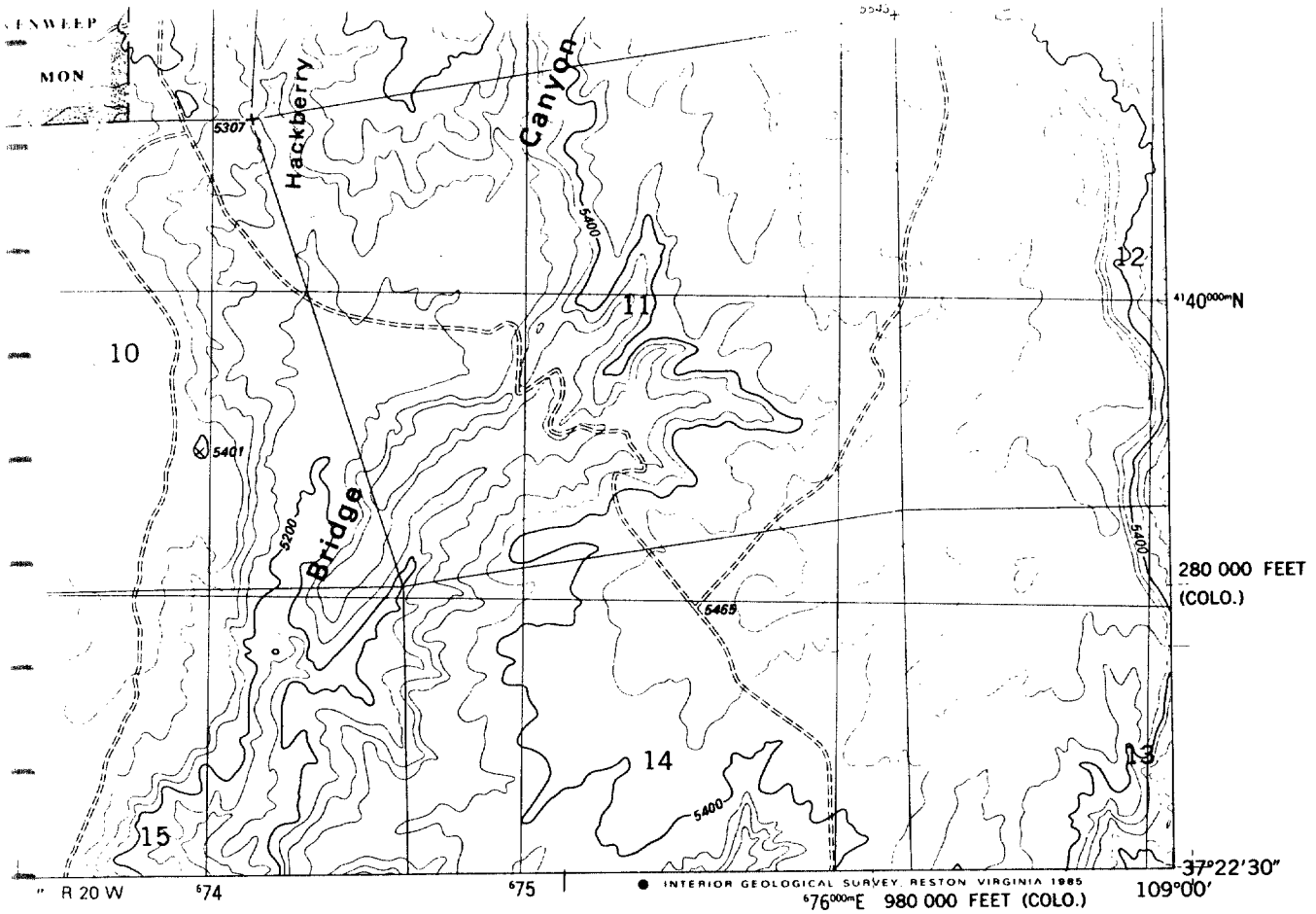
CES will most often be making observations each week during activities at the Asbestos Landfill or for other reasons will be on site. If the run-off containment system (i.e. 4' dike) fails, it will be noticed on the next site visit. The only two (2) areas of possible dike breech would be at the midpoint of the east 80 acres on the west side and at the midpoint of the east 80 acres on the south end. When a breech of containment occurs on the west side of the east 80 acres it merely travels to the west 80 acres and must completely cross the west 80 acres before leaving the Landfill / Landfarm area property. If a breech occurs on the south end of the east 80 acres it could leave the Landfill / Landfarm area and travel to the adjacent land owner.

If a breech in containment occurs and there is evidence of material leaving the Landfill / Landfarm area CES would immediately repair the dike breech with a front loader, road grader, or backhoe and compact the replaced earth with equipment tires. Then CES would travel to the adjacent property and carry any soil that has traveled to that property and return it to within the Landfill / Landfarm diked area. Depending on the severity reseeding may be completed to again establish vegetation if it was present before. The owner of that property would be notified and samples of the soil would be gathered to prove no contaminated soil remained on the adjacent property. A report would be prepared and issued to DOGM, SHWCB and the landowner if necessary. CES would perform other steps if necessary to remedy the situation in accordance with DOGM and SHWCB.

If the fencing was damaged in this same event CES would repair or replace the fencing to match prior to this incident. CES would bare the costs of soil transfer and fencing repair as necessary.

USGS Quadrangle Map

Ruin Point, Utah – Colo.



ROAD CLASSIFICATION

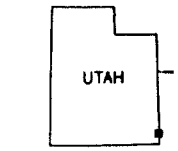
Primary highway, hard surface

Secondary highway, hard surface

Light-duty road, hard or improved surface

Unimproved road

Interstate Route U. S. Route State Route



QUADRANGLE LOCATION

(BOWDISH CANYON) 4258 IV SW

RUIN POINT, UTAH–COLO.

NE/4 CAJON MESA 15' QUADRANGLE

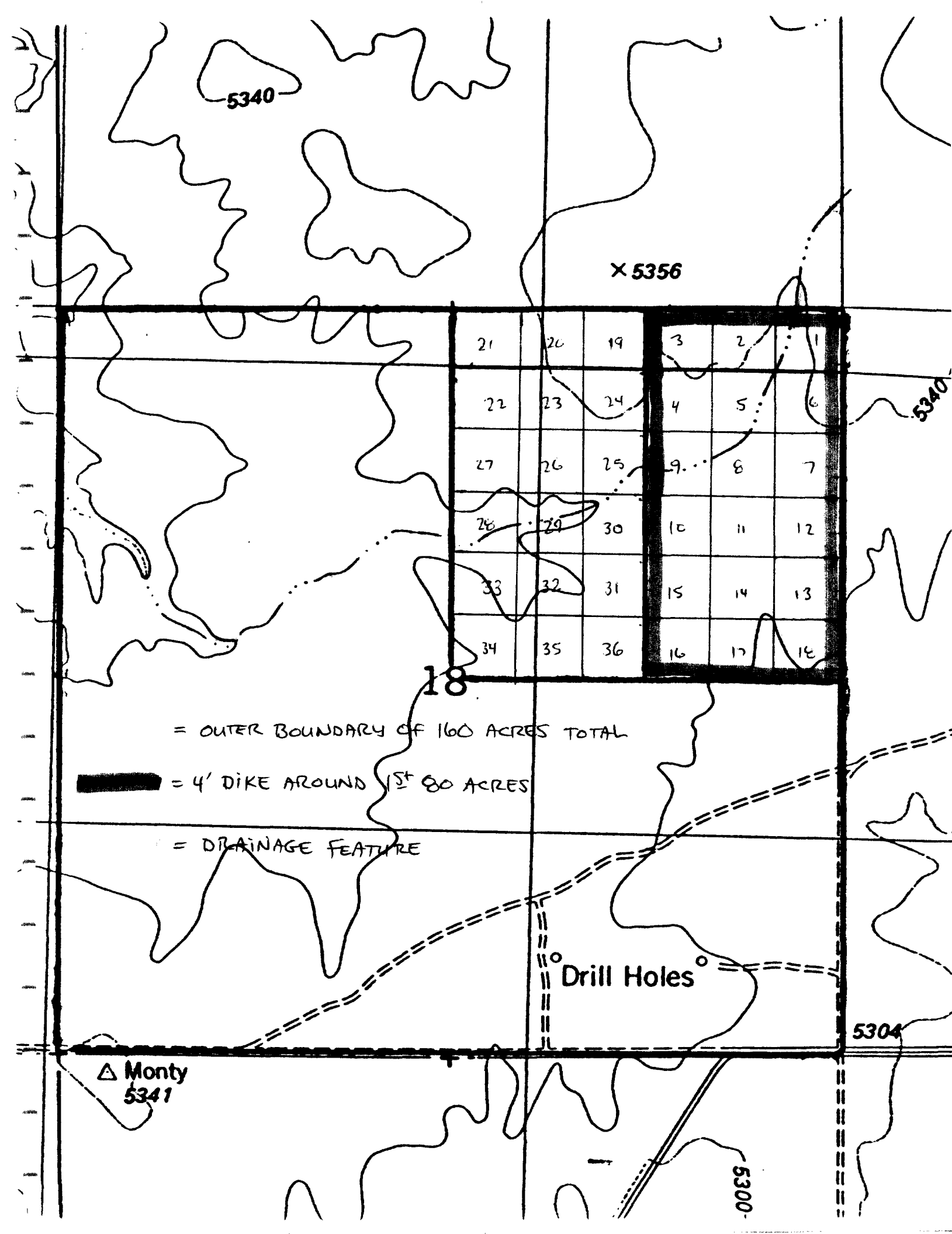
37109–D1–TF–024

1985

DMA 4158 I NE–SERIES V897

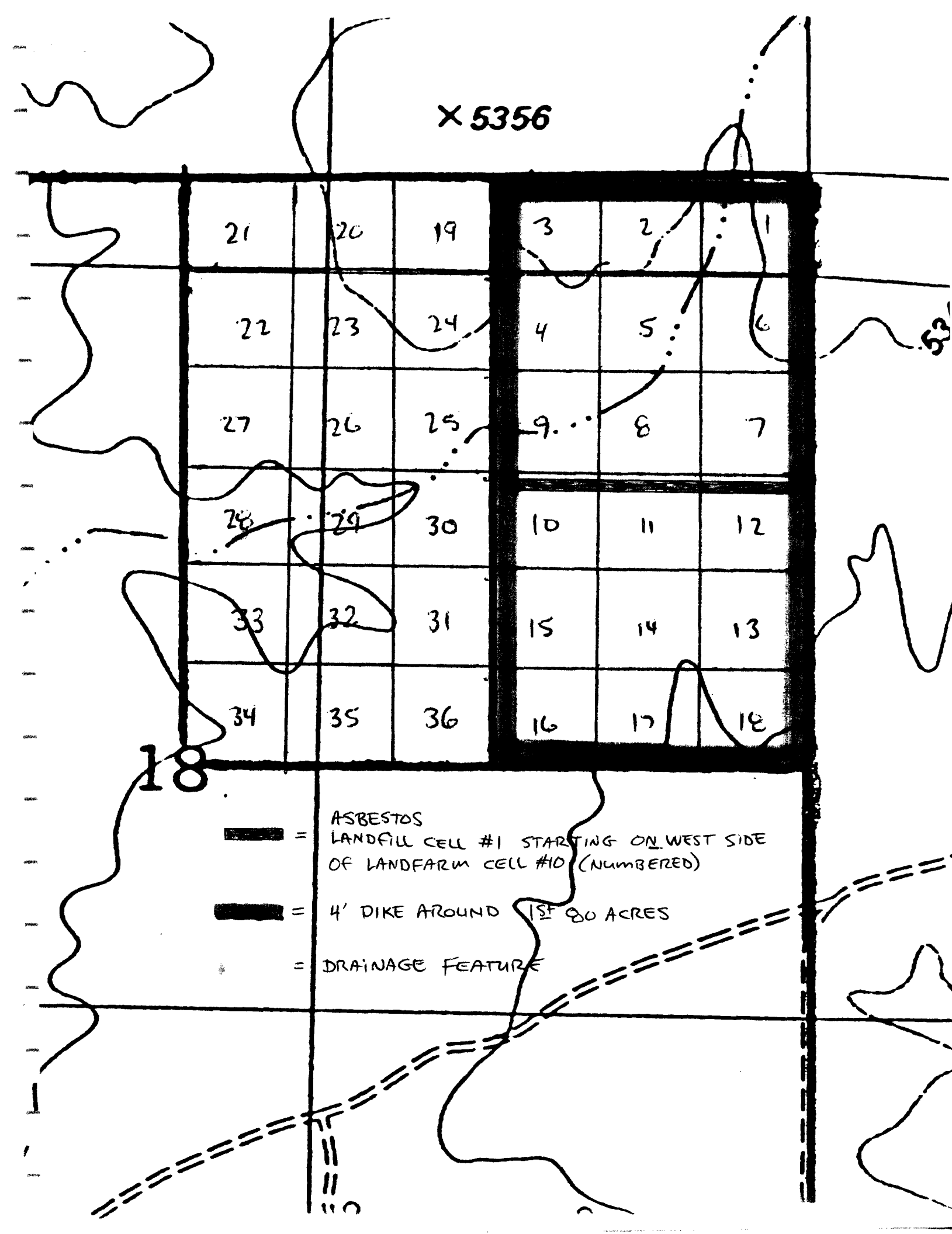
Map Of Current Landfarm Cells

And 4' dike location


5340
X 5356
21
20
19
3
2
1
22
23
24
4
5
6
5340
27
26
25
9
8
7
28
29
30
10
11
12
33
32
31
15
14
13
34
35
36
16
17
18
18
= OUTER BOUNDARY OF 160 ACRES TOTAL
= 4' DIKE AROUND 1ST 80 ACRES
= DRAINAGE FEATURE
Drill Holes
5304
Monty
5341
5300

Map Of Asbestos Landfill Cell

Running E-W


X 5356
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28
29
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10
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34
35
36
16
17
18
18
= ASBESTOS LANDFILL CELL #1 STARTING ON WEST SIDE OF LANDFARM CELL #10 (NUMBERED)
= 4' DIKE AROUND 1ST 80 ACRES
= DRAINAGE FEATURE

Asbestos Surveys To Date

(more to follow)

Farmington Municipal Schools (13 ea)

ICU Rocky Mountain, Inc. (abatement contractor)

Aztec Municipal Schools (6 ea)

Asbestos Survey

Contract Environmental Services, Inc. (CES) has prepared a Solid Waste Asbestos-Containing Building Material Landfill Application for the State Of Utah. As part of that application, CES is required to conduct a market analysis or show evidence of a proven market. This Asbestos Survey is in response to that requirement. Please answer all questions thoroughly and completely to the best of your ability. Information gathered is for the purpose of the survey only. Answers developed today will not be binding at a later date in any way. Please check the box that most clearly describes your particular situation or need.

- ☑ Our organization **has** arranged for disposal of asbestos directly
- ☑ Our organization **has not** arranged for disposal of asbestos directly, it was done through a removal contractor

- ☑ Our organization plans to **continue** asbestos disposal in the future.
- ☐ Our organization will **not continue** asbestos disposal in the future.

Our organization operates primarily as a(n)

☐ Natural Gas Plant	☐ Oil & Gas Producer
☐ Public Utility	☐ State Agency Building
☑ Public School	☐ Federal Agency Building
☐ Other (_____)	☐ Asbestos Abatement Contractor

Our organization would benefit from an asbestos landfill in the Four Corners Area

☑ Yes ☐ No

We are interested in obtaining pricing and other information about this new planned facility ☑ Yes ☐ No

We are interested in the exact location of this planned new facility

☑ Yes ☐ No

Currently our asbestos is shipped to one of the following available asbestos landfills

- ☑ Keers, Inc. of Mountainair, NM
- ☐ Transite Waste - Bondad Landfill, Bondad, CO (non-friable)
- ☐ Montezuman County Landfill, Cortez, CO (non-friable)
- ☐ Other (_____)

We normally dispose of the following approximate quantities of ACBM each year

☑ 1-3 semi trucks	☐ 7-15 semi trucks	☐ 26+ semi trucks
☐ 4-6 semi trucks	☐ 16-25 semi trucks	

Ordinarily or Asbestos Containing Building Materials (ACBM) consists of:

- ☑ Thermal System Insulation (TSI)
- ☑ Floor tile & mastic
- ☑ Spray-on acoustical insulation
- ☐ Oil & Gas vessels
- ☑ Wallboard w/tape & texture
- ☐ Asbestos Containing Soil
- ☑ Cement siding (Transite)
- ☐ Other (_____)

We currently have a need for asbestos disposal
☑ Yes ☐ No

Would a Four Corners asbestos landfill lessen the distance your asbestos waste would be transported ? ☑ Yes ☐ No

Would your organization plan to audit the Asbestos Landfill once it is operational for possible acceptance of your asbestos waste ?

☑ Yes ☐ No

Would you be interested in roll-off waste containers being provided by this new facility ?
☑ Yes ☐ No

Survey completed by: STEVE VOLLMERT

Name of organization: FARMINGTON MUNICIPAL SCHOOLS

Contact person: (SAME)

Title: SUPERVISOR PLANT OPS

Date: 12/14/04

Thank You for your time in filling out the Contract Environmental Services, Inc. Asbestos Questionnaire. If you would like to elaborate on any of the above questions please attach a separate sheet(s) to the survey as needed. For immediate answers to questions you might have call (505) 325-1198 and talk with Shawn Adams. Fax survey results to (505)325-6013 or mail to 410 N. Auburn Avenue, Farmington, NM 87401.

Sincerely,

Shawn Adams
Contract Environmental Services, Inc.

Asbestos Survey

Contract Environmental Services, Inc. (CES) has prepared a Solid Waste Asbestos-Containing Building Material Landfill Application for the State Of Utah. As part of that application, CES is required to conduct a market analysis or show evidence of a proven market. This Asbestos Survey is in response to that requirement. Please answer all questions thoroughly and completely to the best of your ability. Information gathered is for the purpose of the survey only. Answers developed today will not be binding at a later date in any way. Please check the box that most clearly describes your particular situation or need.

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- ☑ Our organization plans to **continue** asbestos disposal in the future.
- ☐ Our organization will **not continue** asbestos disposal in the future.

Our organization operates primarily as a(n)

- ☐ Natural Gas Plant
- ☐ Public Utility
- ☐ Public School
- ☐ Other (_____)
- ☐ Oil & Gas Producer
- ☐ State Agency Building
- ☐ Federal Agency Building
- ☑ Asbestos Abatement Contractor

Our organization would benefit from an asbestos landfill in the Four Corners Area

☑ Yes ☐ No

We are interested in obtaining pricing and other information about this new planned facility ☑ Yes ☐ No

We are interested in the exact location of this planned new facility

☑ Yes ☐ No

Currently our asbestos is shipped to one of the following available asbestos landfills

- ☑ Keers, Inc. of Mountainair, NM
- ☐ Transite Waste - Bondad Landfill, Bondad, CO (non-friable)
- ☐ Montezuman County Landfill, Cortez, CO (non-friable)
- ☐ Other (_____)

We normally dispose of the following approximate quantities of ACBM each year

- ☐ 1-3 semi trucks
- ☑ 4-6 semi trucks
- ☐ 7-15 semi trucks
- ☐ 16-25 semi trucks
- ☐ 26+ semi trucks

Ordinarily or Asbestos Containing Building Materials (ACBM) consists of:

- ☑ Thermal System Insulation (TSI)
- ☑ Floor tile & mastic
- ☐ Spray-on acoustical insulation
- ☐ Oil & Gas vessels
- ☐ Wallboard w/tape & texture
- ☑ Asbestos Containing Soil
- ☑ Cement siding (Transite)
- ☐ Other (_____)

We currently have a need for asbestos disposal
☑ Yes ☐ No

Would a Four Corners asbestos landfill lessen the distance your asbestos waste would be transported ? ☑ Yes ☐ No

Would your organization plan to audit the Asbestos Landfill once it is operational for possible acceptance of your asbestos waste ?

☑ Yes ☐ No

Would you be interested in roll-off waste containers being provided by this new facility ?
☐ Yes ☑ No

Survey completed by: Brant Fourr

Name of organization: ICU Rocky Mountain, Inc

Contact person: Brant Fourr

Title: Manager

Date: 12/14/04

Thank You for your time in filling out the Contract Environmental Services, Inc. Asbestos Questionnaire. If you would like to elaborate on any of the above questions please attach a separate sheet(s) to the survey as needed. For immediate answers to questions you might have call (505) 325-1198 and talk with Shawn Adams. Fax survey results to (505)325-6013 or mail to 410 N. Auburn Avenue, Farmington, NM 87401.

Sincerely,

Shawn Adams
Contract Environmental Services, Inc.

Charlie — please fax to Sharon 325-0613

Asbestos Survey

Contract Environmental Services, Inc. (CES) has prepared a Solid Waste Asbestos-Containing Building Material Landfill Application for the State Of Utah. As part of that application, CES is required to conduct a market analysis or show evidence of a proven market. This Asbestos Survey is in response to that requirement. Please answer all questions thoroughly and completely to the best of your ability. Information gathered is for the purpose of the survey only. Answers developed today will not be binding at a later date in any way. Please check the box that most clearly describes your particular situation or need.

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- ☒ Our organization plans to **continue** asbestos disposal in the future.
- ☐ Our organization will **not continue** asbestos disposal in the future.

Our organization operates primarily as a(n)

- ☐ Natural Gas Plant
- ☐ Public Utility
- ☒ Public School
- ☐ Other (_____)
- ☐ Oil & Gas Producer
- ☐ State Agency Building
- ☐ Federal Agency Building
- ☐ Asbestos Abatement Contractor

Our organization would benefit from an asbestos landfill in the Four Corners Area

☒ Yes ☐ No

We are interested in obtaining pricing and other information about this new planned facility

☒ Yes ☐ No

We are interested in the exact location of this planned new facility

☒ Yes ☐ No

Currently our asbestos is shipped to one of the following available asbestos landfills

- ☒ Keers, Inc. of Mountainair, NM
- ☒ Transite Waste - Bondad Landfill, Bondad, CO (non-friable)
- ☐ Montezuman County Landfill, Cortez, CO (non-friable)
- ☐ Other (_____)

We normally dispose of the following approximate quantities of ACBM each year

- ☒ 1-3 semi trucks (or less)
- ☐ 4-6 semi trucks
- ☐ 7-15 semi trucks
- ☐ 16-25 semi trucks
- ☐ 26+ semi trucks

Ordinarily or Asbestos Containing Building Materials (ACBM) consists of:

- [x] Thermal System Insulation (TSI)
- [x] Floor tile & mastic
- [x] Spray-on acoustical insulation
- [ ] Oil & Gas vessels
- [x] Wallboard w/tape & texture
- [ ] Asbestos Containing Soil
- [x] Cement siding (Transite)
- [ ] Other (_____)

We currently have a need for asbestos disposal

- [ ] Yes
- [x] No

Would a Four Corners asbestos landfill lessen the distance your asbestos waste would be transported ? [x] Yes [ ] No

Would your organization plan to audit the Asbestos Landfill once it is operational for possible acceptance of your asbestos waste ?

- [x] Yes
- [ ] No

Would you be interested in roll-off waste containers being provided by this new facility ?

- [x] Yes Rarely
- [ ] No

Survey completed by: Charles S. Lee

Name of organization: Aztec Municipal Schools

Contact person: Same

Title: Director of Maint & Custodial

Date: 12-14-04

Thank You for your time in filling out the Contract Environmental Services, Inc. Asbestos Questionnaire. If you would like to elaborate on any of the above questions please attach a separate sheet(s) to the survey as needed. For immediate answers to questions you might have call (505) 325-1198 and talk with Shawn Adams. Fax survey results to (505)325-6013 or mail to 410 N. Auburn Avenue, Farmington, NM 87401.

Sincerely,

Shawn Adams
Contract Environmental Services, Inc.

Asbestos Survey

Contract Environmental Services, Inc. (CES) has prepared a Solid Waste Asbestos-Containing Building Material Landfill Application for the State Of Utah. As part of that application, CES is required to conduct a market analysis or show evidence of a proven market. This Asbestos Survey is in response to that requirement. Please answer all questions thoroughly and completely to the best of your ability. Information gathered is for the purpose of the survey only. Answers developed today will not be binding at a later date in any way. Please check the box that most clearly describes your particular situation or need.

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- ☒ Our organization **has not** arranged for disposal of asbestos directly, it was done through a removal contractor

- ☒ Our organization plans to **continue** asbestos disposal in the future.
- ☐ Our organization will **not continue** asbestos disposal in the future.

Our organization operates primarily as a(n)

- ☐ Natural Gas Plant
- ☐ Public Utility
- ☒ Public School
- ☐ Other (_____)
- ☐ Oil & Gas Producer
- ☐ State Agency Building
- ☐ Federal Agency Building
- ☐ Asbestos Abatement Contractor

Our organization would benefit from an asbestos landfill in the Four Corners Area

☒ Yes ☐ No

We are interested in obtaining pricing and other information about this new planned facility

☒ Yes ☐ No

We are interested in the exact location of this planned new facility

☒ Yes ☐ No

Currently our asbestos is shipped to one of the following available asbestos landfills

- ☒ Keers, Inc. of Mountainair, NM
- ☐ Transite Waste - Bondad Landfill, Bondad, CO (non-friable)
- ☐ Montezuman County Landfill, Cortez, CO (non-friable)
- ☐ Other (_____)

We normally dispose of the following approximate quantities of ACBM each year

- ☒ 1-3 semi trucks
- ☐ 4-6 semi trucks
- ☐ 7-15 semi trucks
- ☐ 16-25 semi trucks
- ☐ 26+ semi trucks

Ordinarily or Asbestos Containing Building Materials (ACBM) consists of:

- [x] Thermal System Insulation (TSI)
- [x] Floor tile & mastic
- [x] Spray-on acoustical insulation
- [ ] Oil & Gas vessels
- [x] Wallboard w/tape & texture
- [ ] Asbestos Containing Soil
- [ ] Cement siding (Transite)
- [ ] Other (_____)

We currently have a need for asbestos disposal

- [ ] Yes
- [x] No

Would a Four Corners asbestos landfill lessen the distance your asbestos waste would be transported ?

- [x] Yes
- [ ] No

Would your organization plan to audit the Asbestos Landfill once it is operational for possible acceptance of your asbestos waste ?

- [ ] Yes
- [x] No

Would you be interested in roll-off waste containers being provided by this new facility ?

- [ ] Yes
- [x] No

Survey completed by: Roy Watens

Name of organization: Central Consolidated School Dist. #22

Contact person: Roy Watens

Title: Construction Supervison

Date: 12/20/04

Thank You for your time in filling out the Contract Environmental Services, Inc. Asbestos Questionnaire. If you would like to elaborate on any of the above questions please attach a separate sheet(s) to the survey as needed. For immediate answers to questions you might have call (505) 325-1198 and talk with Shawn Adams. Fax survey results to (505)325-6013 or mail to 410 N. Auburn Avenue, Farmington, NM 87401.

Sincerely,

Shawn Adams
Contract Environmental Services, Inc.

Asbestos Landfill Manifest

Contract Environmental Services, Inc.

410 N. Auburn Avenue Farmington, New Mexico 87401 505-325-1198

Asbestos Landfill Manifest

Manifest Number:

(signature required)

I certify that this is Asbestos-Containing Building MaterialWaste,NoHazardous Waste or PCBs _____

Delivery Date (mm/dd/yy): _____ **Delivery Time:** _____

Volume Delivered (est. cu. Yd.): _____

Description (bags, wrapped pipe, floor tile, etc...) _____

_____

_____

_____

Asbestos Origin and Generator Information:

Location or Building: _____

Address: _____

Generator: _____

Address: _____ Phone: _____

Send Invoice to (if different from above):

Name: _____ **Job or P.O. no.:** _____

Company: _____

Address: _____

Phone: _____

Transporter Information:

Trucking Company: _____

Address: _____

_____

Phone: _____

Driver: _____ **Truck Number:** _____

Time left site: _____ **Time arriving at landfill:** _____

Time to unload contents: _____

Asbestos Covered will be either (check one):

- ☐ **remediated UST**
- ☐ **virgin soil**
- ☐ **remediated E&P**

Depositing Information:

Grid Number Deposited In: _____

Shade in approximate area accounted for by the asbestos in the appropriate grid square:

Asbestos Data:

Acceptable condition: _____

Yes: _____ **No:** _____

Condition remedied by: _____

Returned to Sender: _____

Date returned: _____

GPS info N _____

W _____

21	20	19	3	2	1
22	23	24	4	5	6
27	26	25	9	8	7
28	29	30	10	11	12
33	32	31	15	14	13
34	35	36	16	17	18

Text Reference

Run-off Calculations

The time of concentration is difficult to estimate since the different types of roof, size of housing, population density, land coverage, topography, and slope of land are very complicated. In general, the time of concentration may be between 5 and 10 minutes for both the mains and the submains.

EXAMPLE: The subdrain sewer line to a storm sewer is 1.620 km (1 mile). The average flow rate is 1 m/s. Inlet time from the surface inlet through the overland is 7 min. Find the time of concentration to the storm sewer.

Solution:

Step 1. Determine the time of sewer flow, t_s

$$t_s = \frac{L}{v} = \frac{1600\,\text{m}}{1\,\text{m/s}} = 1620\,\text{s} = 27\,\text{min}$$

Step 2. Find t

$$t = t_i + t_s = 7\,\text{min} + 27\,\text{min}$$
$$= 34\,\text{min}$$

7.3 Estimation of Runoff

The quantity of stormwater runoff can be estimated by the rational method or by the empirical formula. Each method has its advantages. The rational formula for the determination of the quantity of stormwater runoff is

$$Q = CIA \tag{7.12a}$$

where Q = peak runoff from rainfall, ft^3/s
C = runoff coefficient, dimensionless
I = rainfall intensity, inches rain/h
A = drainage area, acres

The formula in SI units is

$$Q = 0.278\ CIA \tag{7.12b}$$

where Q = peak runoff, m^3/s
C = runoff coefficient, see Table 7.2
I = rainfall intensity, mm/h
A = drainage area, km^2

The coefficient of runoff for a specific area depends upon the character and the slope of the surface, the type and extent of vegetation, and other factors. The approximate values of the runoff coefficient are shown in Table 7.2. There are empirical formulas for the runoff coefficient. However, the values of C in Table 7.2 are most commonly used.

EXAMPLE: In a suburban residential area of 1000 acres ($4.047\ \text{km}^2$), the rainfall intensity–duration of a 20-min 25-year storm is 6.1 in/h (155 mm/h). Find the maximum rate of runoff.

Solution: From Table 7.2, $C = 0.50$
Using Eq. (7-12a)

TABLE 7.2 Coefficient of Runoff for Various Surfaces

Type of surface	Flat slope < 2%	Rolling slope 2–10%	Hilly slope > 10%
Pavements, roofs	0.90	0.90	0.90
City business areas	0.80	0.85	0.85
Dense residential areas	0.60	0.65	0.70
Suburban residential areas	0.45	0.50	0.55
Earth areas	0.60	0.65	0.70
Grassed areas	0.25	0.30	0.30
Cultivated land			
clay, loam	0.50	0.55	0.60
sand	0.25	0.30	0.35
Meadows and pasture lands	0.25	0.30	0.35
Forests and wooded areas	0.10	0.15	0.20

Source: Perry (1967)

$$Q = CIA$$
$$= 0.5 \times 6.1 \text{ in/h} \times 1000 \text{ acre}$$
$$= 3050 \frac{\text{acre} \cdot \text{in}}{\text{h}} \times \frac{1\text{ h}}{3600\text{ s}} \times \frac{1\text{ ft}}{12\text{ in}} \times \frac{43{,}560\text{ ft}^2}{1\text{ acre}} = 3075\ \text{ft}^3/\text{s}$$

Note: In practice, a factor of 1.0083 conversion is not necessary. The answer could be just $3050 \text{ ft}^3/\text{s}$.

8 STORMWATER QUALITY

The quality and quantity of stormwaters depend on several factors—intensity, duration, and area extent of storms. The time interval between successive storms also has significant effects on both the quantity and quality of stormwater runoff. Land contours, urban location permeability, land uses and developments, population densities, incidence and nature of industries, size and layout of sewer systems, and other factors are also influential.

Since the 1950s, many studies on stormwater quality indicate that runoff quality differs widely in pattern, background conditions, and from location to location. Wanielista and Yousef (1993) summarized runoff quality on city street, lawn surface, rural road, highway, and by land-use categories. Rainwater quality and pollutant loading rates are also presented.

8.1 National Urban Runoff Program

In 1981 and 1982, the US EPA's National Urban Runoff Program (NURP) collected urban stormwater runoff data from 81 sites located in 22 cities throughout the United States. The data covered more than 2300 separate storm events. Data was evaluated for solids, oxygen demand, nutrients, metals, toxic chemicals, and bacteria. The median event mean concentrations (EMC) and coefficients of variance for ten standard parameters for four different land use categories are listed in Table 7.3 (US EPA 1983a). It was found that lead, copper, and zinc are the most significant heavy metals found in urban runoff and showed the highest concentrations. The EMC for a storm is determined by flow-weighted calculation.

Asbestos Landfill Site Inspection Form

ASBESTOS LANDFILL SITE INSPECTION FORM

Soil conditions overlying asbestos bags ? Affected by erosion ? □ yes □ no
Affected by wind ? □ yes □ no
Affected by rodents ? □ yes □ no
Landfill cell(s) needing attention _____ remedied by what type of equipment

_____

_____

Water visible at Asbestos Landfill cell working face ? □ yes □ no
Plastic visible at Asbestos Landfill cell working face ? □ yes □ no
Date re-covered _____ Secondary cover added _____
□ UST remediated soil □ O & G remediated soil □ Virgin soil from LF

Topsoil replaced ? _____ Amount _____ Seeded _____
Vegetation taking hold? _____ describe _____

_____

Types of plants noticed? _____
Describe condition? _____

Date: _____ Time: _____ Inspector: _____
Recommended response action _____

_____

_____

Equipment used to remedy: _____
Operator: _____ Respirator protection required ? _____

Water spray added while unloading? _____
Berm Status ? _____

_____

_____

Closest LF cell to berm location needing attention? _____

Weather conditions _____

_____

Visitor Sign In _____ _____ _____

Cubic yards unloaded _____ Bags _____
Condition _____

_____

Other Comments : _____

_____

_____

_____

_____

Question #5

The depth to groundwater is greater than ten (10') below ground level.

Question #7

Contract Environmental Service, Inc. will cover the amount of the expected closure and post closure care costs using one of the following financial mechanisms. CES would like to request that we be allowed to progressively expand this mechanism with $ 36,000 being required the first year $ 72,000.00 the next and so forth until the total of $ 180,000 be completed as the actual asbestos cells fill up.

1) Performance Bond
2) Payment Bond
3) Letter of Credit
4) Trust Fund
5) Cash
6) Other

This will give CES the needed time to have receivables come in to offset this cost. CES will be happy to measure the actual full cells each year and have the State Of Utah verify the amounts. That way the bonding amount (or other) will fit the situation as close as possible. For each cell that is closed with verification by the State of Utah, CES should be able to subtract the closure costs from the amount required on the bond (or other). For that particular cell (if closed) only the post closure amount would remain as part of the bond.

Question #9 Closure and Post Closure Care Costs

In the first five (5) years of this permit operation, CES anticipates to fill and close three (3) LF cells or nine (9) acres. Three (3) LF cells closed based on our projections of $ 53,016.00 per each gives .....$ 159,048 for the estimated actual closure anticipated.

Post Closure care cost for this same nine (9) acres based on the total post closure cost estimate of $ 367,140 (160 acres) would be at a percent of the total. 9 / 160 is 5.6%. Multiplying 5.6% * ($367,140.00) = ...$ 20,651.00

Total $ 179,700.00

Closure Costs Nine (9) Acres .....$ 159,048.00

Post Closure Costs Nine (9) Acres ..... $ 20,651.00

Total Closure + Post Closure Nine (9) Acres ..... $ 179,700.00